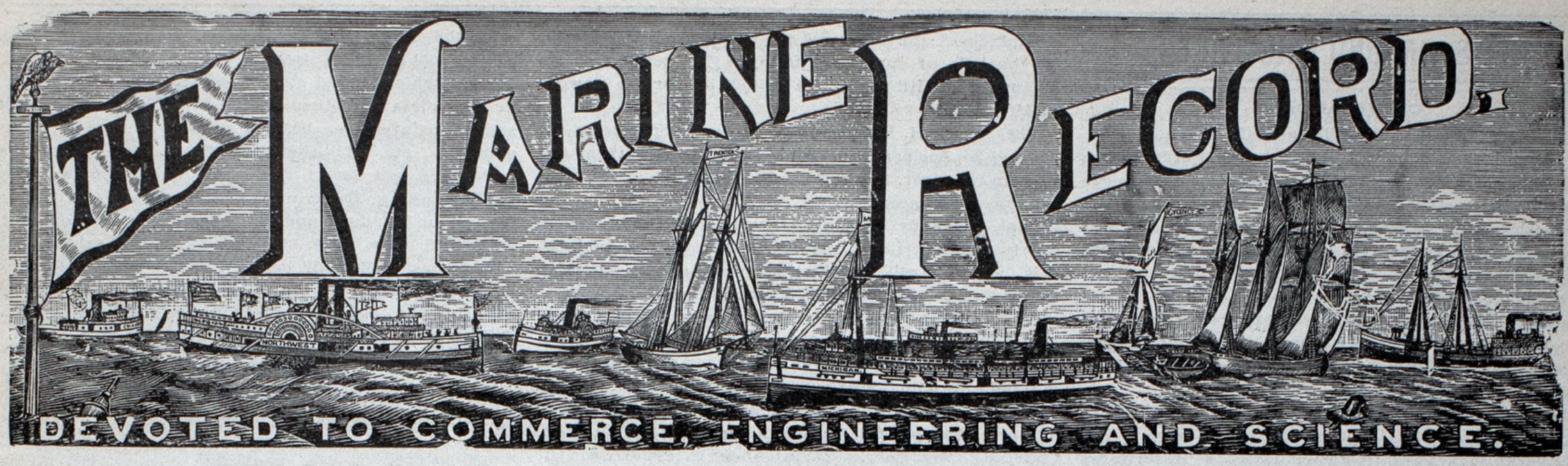

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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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A. A. Parker,	Detroit, Mich.		

DEATH OF COMMANDER WOODWARD.

The retirement of Commander Edwin T. Woodward, U. S. N., which occurred on the 3d of July last, has been speedily followed by his death at Saratoga, N. Y., where he went after his retirement Bright's disease and dropsy had undermined his constitution, but his death is ascribed to heart failure. He returned from the command of the Adams three years ago much broken in health, and he lay for some time in the Mare Island Hospital at the point of death. He recovered sufficiently to take charge of the Lake Erie L. H. District, but was not able to pass his physical examination for promotion to the grade of captain, and was retired under the operation of law. He was a native of Vermont, where he was born March 8, 1843. He entered the Naval Academy Nov. 21, 1859, was promoted lieutenant Feb. 22, 1864, lieutenant commander July 25, 1866, and commander Feb. 2. 1878. Commander Woodward in 1861 began his active career on board the steam sloop Mississippi. He was transferred from ship to ship, taking part in the capture of New Orleans, the attacks on Vicksburg under Admiral Farragut and many other historical naval engagements. While serving on the steamship Minnesota he was in the landing party from the fleet at the attack on Fort Fisher. He served on the Kearsarge in 1865-66. With the Adams he quelled a riot at Hawaii during August, 1892. Comdr. Woodward is survived by a widow, who is the daughter of the Rev. Dr. Bostwick Hawley, at whose residence the Commander died. He was a member of Post Wheeler, G. A. R.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 10TH DIST.,
BUFFALO, N. Y., February 27, 1894.

Notice is hereby given that the exhibition of lights in the Tenth Light-House District will be resumed for the season at light-houses in Lake Erie and Detroit river on March 15th, and at light-houses in St. Lawrence river and Lake Ontario on April 1, 1894.

JAS. G. GREEN,
Commander, U. S. N.,
Inspector Tenth Light-House District.

RAISING VESSELS.

The Grant brothers, inventors of the collapsable cylinder vessel-raising devices, say that the original idea of raising sunken vessels by means of air forced into canvas sacks after they are placed inside vessels was conceived on the Ohio river. When a boat containing several drowned horses came to the surface people wondered why that boat came up. The Yankee Grants overhauled her and found that the carcasses of the horses had bloated, and that the gas and air inside them had raised the vessel. They worked up the idea, only to find that an old man by the name of Amire, living in Nova Scotia, had obtained a patent on the collapsable cylinder idea. Amire was approached and was glad to dispose of his patent rights for $2,000, and the Grant brothers, using chemicals with the air, claim to be able to raise all sunken vessels in the world with a handful of men at a very slight expense.

THE NEW FLOATING BETHEL.

Chaplain J. D. Jones, of the Floating Bethel Society, has made many friends by the prompt and cheery manner in which he looks after the spiritual and temporal wants of those to whom his attention is directed. Some of the more wealthy of these have completed arrangements whereby his small quarters on River street were exchanged for a much larger and handsomer place adjoining. His lake-faring proteges, when they learned of the impending change, turned to with a will, and as soon as the property was fairly in the chaplain's hands they were scurrying around with broom, mop, and paint brush, doing everything in the way of the temporary remodeling required except such work as steam and gas fitting. This demonstration of their affection for their chaplain and their appreciation of his steady and untiring efforts in their behalf had the practical result that on Sunday last, a few days after the transfer, the chapel was ready for occupancy. The usual Sunday services were held in the new quarters, and were attended by a large number of the friends and patrons of the chaplain, including several leading members of the society. Chaplain Jones tendered the men a supper at the close of the services. The new Floating Bethel is a comparatively new building, with three stories on River street and four stories on the dock front. The lower story will be used as a reading room for the men, the street floor as a chapel, and the upper floors for quarters for those in charge, and for general purposes. The chaplain is to be congratulated upon the change, which will enable him to prosecute his good work to especial advantage.

INSPECTION OF IRON AND STEEL PLATE.

Supervising Inspector-General James A. Dumont has issued the following circular to supervising, local and assistant inspectors of steam vessels, manufacturers of marine boiler plate, boiler manufacturers, and others:

"Your attention is invited to the following regulations for carrying into effect the act of Congress approved January 22, 1894, amending section forty-four hundred and thirty, Title fifty-two, of the Revised Statutes of the United States, relative to inspection of iron or steel boiler plates, by adding thereto a paragraph as follows:

"And the Supervising Inspector-General may, under the direction of the Secretary of the Treasury, detail assistant inspectors from any local inspection district where assistant inspectors are employed, to inspect iron or steel boiler plates at the mills where the same are manufactured; and if the plates are found in accordance with the rules of the supervising inspectors, the assistant inspector shall stamp the same with the initials of his name, followed by the letters and words, 'U. S. Assistant Inspector;' and material so stamped shall be accepted by the local inspectors in the districts where such material is to be manufactured into marine boilers as being in full compliance with the requirements of this section regarding the inspection of boiler plates; it being further provided that any person who affixes any false, forged, fraudulent, spurious, or counterfeit of the stamp herein authorized to be put on by an assistant inspector shall be deemed guilty of a felony, and shall be fined not less than one thousand dollars, nor more than five thousand dollars, and imprisoned not less than two years nor more than five years.

"Manufacturers of boiler plate, steel or iron, requiring the services of an assistant inspector, under the provisions of the act quoted, to test boiler plates at the mills where manufactured, must make application to the Supervising Inspector-General direct by mail or telegram, stating, when applications are by mail, the number of plates to be tested, the name and address of the boiler manufacturer, the local inspection district in which such manufactory is located, accompanied with a duplicate of the boiler manufacturer's order containing size and description of plates required, tensile strength, etc. When application is made by telegram, the details described must be furnished the assistant inspector who may be detailed to make the required tests previous to such tests being made."

ELECTRIC LIGHTS FOR HAY LAKE CHANNEL.

Commander W. M. Mead, U. S. N., inspector of the Eleventh Light-House district, through correspondence with P. M. Church has requested the Edison Sault Electric Co. to furnish an estimate of the cost of lighting Hay Lake channel by a system of electric buoys. The plan as now contemplated is to run electric cables from the Soo on each side of Hay Lake channel with connecting submerged cables, to each of 56 electric lamps or buoys, situated on either side of the channel, 28 on each side, the lights on the north side to be red and those on the south side to be white, and the lights of each side to be independent of the other side. If the plan is found feasible it will be recommended to the Light-House Board for adoption. From the place where the Hay Lake channel leaves the old channel to where it again joins it is 15¾ miles, while by the old channel it is 25¾ miles.

Four Steam Pump Cylinders. 16½″ × 12″.
Scale of Spring 40. Boiler Press. 110 lbs.
200. Revs. Per. Min. Combined H.P. 650.

Four Water Cylinders. 9½″ × 12″.
Scale of Spring 100. Water Press 160 lbs.
Combined H.P. 552.
Piston Speed 400 ft. per. min

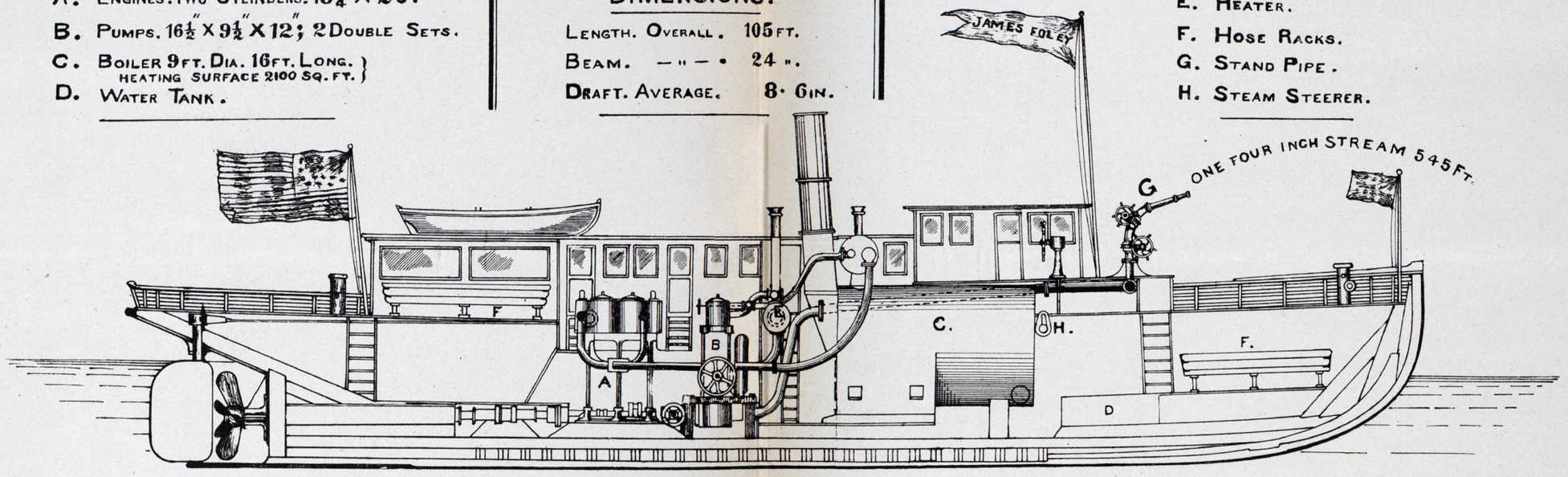
Two Steam Cylinders 18¼″ × 20″.
Scale of Spring 50. Boiler Press. 110 lbs.
165 Revs. Per. Min. Combined H.P. 700.

A. Engines. Two Cylinders. 18¼″ × 20″.
B. Pumps. 16½″ × 9½″ × 12″; 2 Double Sets.
C. Boiler 9 ft. Dia. 16 ft. Long. } Heating Surface 2100 Sq. Ft. }
D. Water Tank.

DIMENSIONS.

Length. Overall. 105 ft.
Beam. —"—• 24 ".
Draft. Average. 8· 6 in.

E. Heater.
F. Hose Racks.
G. Stand Pipe.
H. Steam Steerer.



THE MILWAUKEE FIRE BOAT "JAMES FOLEY."

CHAS. F. ELMES. ENGINEERING WORKS. CHICAGO.

DESIGNERS AND BUILDERS.

OF

PROPELLING ENGINES. PUMPS AND STEAM STEERER.

1893.

NEWS AROUND THE LAKES.

CLEVELAND, O.

The offices of the Wilson Transit Co. have been removed from the Wilshire Building to the Perry-Payne.

Mr. Augustus Zehring takes possession to-day as collector of customs for the district of the Cuyahoga.

The Cleveland, Canton & Southern dock, which was damaged by fire at the close of last season, has been thoroughly repaired.

The Chase Machine Co. are at work on two ballast pumps for the new deep-draft freighter building at the Chicago shipyard. The new elevator pump which they placed in the Wade building two weeks ago is giving the greatest satisfaction.

The Vessel Owners' Towing Co. have the tugs H. L. Chamberlin and C. G. Curtis in commission. The Chamberlin makes two trips each day to the waterworks crib, to carry out and back a force of twelve men who are engaged on interior repair work.

The Viaduct Brass Works, manufacturers of head lights, deck plugs, whistle cranks, etc., have been removed from the corner of Main and Center to the corner of Washington and Center streets. Mr. F. C. Whittlesey has entered into partnership with J. D. Anderson, the former sole proprietor.

James Dolan, of Milwaukee, has been spending several days in the city, organizing a Cleveland branch of the new Lake Faring Men's Union. A local union was organized Wednesday afternoon at No. 68 Superior street, and another meeting will be held next Saturday at the same place. John O'Brien is president and Samuel Bolsted secretary.

A suit is on trial in Judge Hutchins' room in the Court of Common Pleas, brought by T. P. O'Shea, administrator of the estate of James Cooney, against the city of Cleveland and the steamer Queen of the West. O'Shea claims $10,000 damages for the death of Cooney, who was killed in the collision of the steamer with the Columbus street bridge on June 12, 1891. The jury visited the scene of the accident Wednesday afternoon.

Once again is talk revived of a contemplated plan to place in commission a car ferry between Cleveland and Canada. This time the inquirers are Seligman Bros., of New York, bankers and stock brokers, who have purchased the controlling interest in the Lake Erie Railroad Co., and who see the advantages of a Cleveland connection. Advances have not yet been made, except to obtain from the Cleveland Ship Building Co. the approximate cost of building a steamer especially adapted to the trade in question. The southern terminus of the railroad is at Rondeau, fifty-five miles distance, and directly opposite on Lake Erie.

The Cleveland City Forge Co. has just shipped to Edward P. Allis & Co., of Milwaukee, a large shaft for the new pumps which that firm is constructing for the Tamarack copper mine and which were fully described in THE MARINE RECORD of February 15th. The shaft is one of the three largest ever sent out from this establishment, and is 38 feet in length, and weighed 71,420 pounds. Its largest diameter was 28¼ inches, and its smallest diameter 20 inches. The company has some marine work on hand, being engaged on stern plates and rudder frames for the new deep-draft freight boats now building by the Globe Iron Works Co., of Cleveland, and the Chicago Ship Building Co.

At the Globe shipyard there is a scene of great activity. Work on the Great Northern steamer North Land is being pushed once more and is expected to be ready for sea about August 3. The North West is rapidly getting on towards completion, and it is hoped to have her boilers ready in a month or six weeks. Some of the boilers have already had steam in them to test them for leaks. Work of connecting up her engines is moving along carefully. It is hoped to have her ready to go into commission by April 15, but she will give general excursions out of Cleveland, Detroit and Buffalo before starting on her regular trips to Lake Superior, which will begin with the summer passenger season.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

M. M. Drake, of Buffalo, was in Chicago last Friday.

Capt. Dan Rice, of Buffalo, was in this city Tuesday.

Messrs. La Salle and Rose, vessel agents, of Duluth, were in Chicago last week.

C. T. Palmer, vessel agent, of Cleveland, has been spending a few days in this city.

Elphicke & Co. have chartered the steamer Alva for 125,000 bushels of corn at 2⅞ cents, South Chicago to Buffalo.

P. H. Fleming has chartered the steamer Henry J. Johnson, for 75,000 bushels of corn to Buffalo at 2¾ cents.

The steamer H. A. Tuttle is unloading her cargo of coal at Cox Bros.' this week. She is the last of the last season's fleet to unload.

Elphicke & Co. chartered the barge Shawnee for 40,000 bushels of corn to Buffalo, at 2¾ cents, and the steamer J. J. Hill for 42,000 bushels of corn to Oswego at 4¼ cents.

The tug J. H. Hackley was in dock for repairs for damage to her port bow done by collision with a sand scow in the river, the tug A. S. Allen was in for some repairs and ironing.

Capt. Alexander Sinclair arrived here Monday morning from Port Huron. He is on his way to Ashland, Wis,, where he will go into the vessel agency business, in connection with Mitchell & Co., of Cleveland.

Capt. David Curran, Jr., will command the steam barge Charlers Rietz next season, Chief Engineer William Anderson and Assistant Engineer William Harice will hold the same position on her another year.

At Miller Bros'. shipyard the steamer Schuylkill went in dock Monday for bottom scraping and painting. Charles F. Strasmer, superintendent of repairs for the Anchor Line is here from Buffalo, superintending the work.

The arbitration in the case of the barge Masten and tug Gillen was completed on Friday. The barge and tug were both held as equally at fault, and the amount for the damages actually sustained by the barge through going ashore is to be equally divided between the owners of the barge and tug.

There is a movement amongst the marine men of this port to have John G. Keith elected alderman of the Eleventh ward. It is a strong Republican ward, and he can get the nomination and most probably be elected if he and his friends strain an effort. The marine interests should always have a representative in the city council. When Capt. J. S. Dunham was alderman a few years ago the marine interests at this port were well looked after and many evils eradicated and improvements made.

Following are the steamers in Chicago district whose certificates of inspection expire during the month of March: Tugs Chicago, J. H. Hackley and William R. Crowell, March 1st; Canal steamer Imperial and tug Dennis Brothers, 8th; tugs Robert Tarrant, George W. Gardner and Mosher, 15th; tug Success, 20th; canal steamer Ed. Heath, 21st; tug Alert, 23d; tugs Charmer and Monitor, 27th; tugs Frank R. Crane and Commodore, 28th; steamer Sylvanus J. Macy, 29th; tugs O. B. Green, Bob Teed and Robbie Dunham, 31st.

Capt. John Prindiville has chartered the steamer H. A. Tuttle for 75,000 bushels of corn to Buffalo at 2¾ cents; Carr & Blair have chartered the steamer Uganda for 95,000 bushels of corn to Buffalo at 2¾ cents; J. G. Keith & Co. have chartered the schooner Cora A. for corn to Sarnia at 2¼ cents and the steamer F. Schlisinger for corn, South Chicago to Buffalo; W. M. Egan has chartered the steamers City of Venice, Thomas Cranage R. E. Schuck and Ed. Brown for corn to Buffalo at 2¾ cents.

The following officers have been appointed to the L. M. & L. S. Transportation Co. steamers for the season of 1894: Manitou—Allan McIntyre, master; H. J. Seaton, clerk; S. W. Armstrong, chief engineer; W. B. Sprague, steward. City of Duluth—Donald MacLean, master; C. L. Simmons, clerk; Henry Chalk, chief engineer; C. C. Palmer, steward. Peerless—H. C. Page, master; S. H. Davis, clerk; J. R. Bennett, chief engineer; Jas. Shaw, steward. City of Traverse—J. M. Twitchell, master; F. J. Carlin, clerk; D. MacManemy, chief engineer; Geo. W. Palmer, steward. Jay Gould—James White, master; Hawkin Brooks, clerk; A. P. Williams, chief engineer; Charles E. Prior, steward.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

There is a movement on foot, started by the joint action of a committee of South Buffalo citizens and a committee of the Business Men's Association, to secure better protection against floods, which, if carried out, will add much to the convenience of boats navigating Buffalo Creek. Two cut-offs are provided for in the plan, to prevent the water from passing around a long bend, and allowing of quicker passage to the lake. The first of these is across the narrowest part of the peninsula at Farmer's Point, crossing Katherine street north of the Union Iron Company's dock, the cut to be 200 feet wide. The other cut is to be 150 feet wide and to extend from Bailey avenue nearly to Seneca street.

The Northern Line is putting an electric hoisting apparatus in the North Star, which is lying at the Tifft Farm this Winter. There was something over in the lighting plant that can be utilized, but considerable additional power is being provided, so that the hoist will be able to lift 2,400 pounds 120 feet a minute, if desired. The motors are to be placed at each hatch, and in this way all the old difficulty about the shafting getting out of line will be done away with. The Fisher Electric Company of Detroit is doing the work.

The Northern Steamship Co. is about to begin operations here to provide for the passenger traffic connected with the palace steamer line to Duluth. The building at the foot of Main street is to be fitted up at once for the convenience and comfort of travelers. There will be first-class and other rooms, lunch room and necessary appointments, besides supply stores of meats, groceries, etc. All the tenants except the tug lines have been got out of the way. When the two boats begin running, departures will be made from here at 9 p. m. on Mondays and Fridays. The time to Duluth will be 56 hours, with stops of five hours on the way. The fastest time will be on Lake Superior, about 21 miles an hour after leaving the Sault. By the schedule the boats will lie 39 hours here and seven at Duluth in order to make a round trip a week.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

The St. Clair river is blocked up as far as this city.

Geo. M. Scholn of S. F. Hodge & Co., of Detroit was in this city on business connected with his firm.

Capt. H. N. Jex will leave for the bison city about the 1st of March to fit out the schooner John Wesley.

Large repairs have been made on the tugs Merrick and Brockway, and when the season opens both tugs will leave for the Soo where they will be stationed for the season.

Capt. Charles W. Innes will walk the quarter deck of the fine ship O. J. Hale, for the season of 1894. Capt. George Bennett will sail the packet ship Hunter Savidge this season.

There is some talk of the Canadian Pacific Railroad coming through this place and that they intend to purchase the car ferries International and Huron from the Grand Trunk Railway to transfer their cars.

The tug Thompson of South Haven, bunted a channel through the ice last Sunday for the steamers Chicora and Reid, with two tugs which had previously gone to their assistance, all four having become fast in the ice, twenty-five miles from Benton Harbor. After three hours hard work she got them out of their predicament, and took them to port, where the crews celebrated their narrow escape after a long and dangerous struggle with the ice. The tug Thompson is owned by Thompson, Lynn & Boynton of Port Huron; she is 92 feet keel, 19 feet beam, 10½ feet hold, engines 22½ by 26 and is allowed 145 pounds of steam. She is fitted out with all the latest improvements and a full wrecking outfit. The Thompson was put into commission last fall and was at Grand Haven attending the steamers Roanoke and Wisconsin at the time the steamer got fast at Benton Harbor.

COLLINGWOOD, ONT.

Special Correspondence to The Marine Record.

President J. J. Long, in delivering his address in the annual meeting of the Collingwood Board of Trade, held in the town hall on the 20th inst., called attention, among other things to the following facts: "In the first industry there is invested about $100,000, in boats, steam tugs, nets and plant. The annual catch of fish amounts to about $125,000, and the number of men employed is about 250, all able bodied, who are ready and willing, should occasion require it, to assist in defending the country.

"The condition of our harbor has been a matter of great anxiety to this board for several years, and especially during the past season, when valuable business offered to come to our port, but was prevented because there was not sufficient depth of water in the harbor to accommodate the vessels desiring to come here. While this is a great loss to this town, it may also be a serious loss to the Grand Trunk Railway Company, which should naturally look to this town, from its geographical position and being the pioneer port of the upper lakes as one of its principal feeders with the products of the great North-west, as in all likelihood much of the products which could not come into our harbor found their way to the seaboard via. Buffalo and American lines of transportation, thus losing entirely to Canadian channels the commerce thus diverted. The Mayor for 1893 and myself urged upon several members of the Government early in the year our great need for the immediate improvement of the harbor, and, although the Government has caused some useful work to be done, the scheme of giving us 20 feet of water in the harbor, which we urgently require and which we were led to expect we would have when the town undertook to pay a considerable portion of the cost thereof, is not being vigorously gone on with, and it is to the prosecution of that scheme I would suggest the best energies of this board and the Town Council should be directed during this year.

"The fact that Collingwood is yearly becoming a greater wholesale distributing point is well attested by the additions that are being made from year to year by the steamboat lines making this port their headquarters. Seventeen years ago there was only one small freight and passenger steamer belonging to this port; now

there are nine commodious freight and passenger steamers, some of them equal, in all respects necessary to safety and comforts, to any Canadian fresh water steamers.

"The value of our imports for 1893, as entered in Customs Department here, was $109,084. The value of exports from the Collingwood consular district for the year 1892 was $1,317,310. This amount, compared with our foreign imports, shows the trade of Collinwood to be in a healthy condition.

"The work being carried on by the dry dock company is of incalculable benefit to the town. All this Winter a large number of men have been employed in rebuilding, repairing and lengthening steam vessels, and now they are building a large steam tug, which, when completed early in May, will be one of the best in Canada. To the high class of work done by this company ever since it commenced may be attributed its present activity. At present time there are six steam vessels in the dry dock, two of which are 331 feet in length. These, together with the new large tug being built in the company's shipyard, give the dry dock and its surroundings a very busy appearance."

NOTES FROM ALL PORTS.

A new pier will be built at Glenn, Mich., for the fruit trade.

At Bailey's Harbor the scow South Side has broken in two and her main-mast is gone.

The small steamer Friant is to be run between Traverse City and Northport during the coming season.

Nearly all of the Grand Haven fishing tugs are idle. Even Capt. Kirby's deep water tugs are in ordinary.

The Bissell dock and warehouse, at Detroit, has been leased for use by the Northern Line passenger steamers.

During the recent great gale on Lake Superior, ice was piled upon the dock at Marquette to the depth of ten feet.

The boilers of the steamer Haskell, Averill and Frost are being repaired at Ogdensburg. The Frost is also receiving a new deck.

It is stated that Capt. H. W. Bennett has purchased an interest in the steam barge William Rudolph, and will have command of the boat the coming season.

Andrew Gunderson and Robert Edwards, of Sheboygan, have purchased the fishing tug Carrie Currens from Two Rivers parties, and will transfer her to Sheboygan.

The Soo Line is looking for ore to form part of the down loads of the whalebacks, and have so far added the Nebraska to the Ford as leased boats. Further additions will doubtless be made in a short time.

The owners of the Vulcan and the Vega are asking bids for putting gangways and hoisting apparatus in them, but complain that the price so far asked, $7,500, is too high, especially as there is no certainty of getting any package freight to carry.

The Committee of Commercc of the House has agreed unanimously to report the bill of the Duluth & Superior Bridge Co., and the Duluth Transfer Railway Co. favorably. This bridge bill has been so amended as to require the span to be 28 feet above the surface water.

Capt. Ackerman is thinking of having the cabin of the City of Marquette entirely changed so that she will have better and larger accommodations for passengers. She went to Manitowoc last Sunday, to get shipcarpenters to make an estimate upon the job.

The London and Port Stanley Railway Co. will seek power to issue debentures to raise moneys for the renewal of the bridges, trestles and large culverts on their line, according to the term of a proposed lease between the company and the Lake Erie and Detroit River Railway Co.

The Lackawanna Line will be enlarged by the addi tion of the big steamers John W. Moore and Arthur Orr, which, with the other leased boats, the Cuba, Wyoming and Florida, will make six for Chicago and three for Green Bay. The final leases for some of these are not yet signed, but there seems not to be any doubt of the arrangement going through.

Col. Tisdale, M. P., has deposited with the clerk of the Railway Committee of the Canadian House of Commons, the draft bill for the incorporation of the St. Clair and Lake Erie Ship Canal Co., which has for its object the construction of a canal 13 miles long, from Lake St. Clair to Lake Erie. This canal will save a great detour to vessels which at present have to utilize the Detroit river. The capital of the proposed company is $5,000,000.

Capt. John Clifford, who had charge of the Canadian steamer Lake Michigan last year, will sail the Acadia next summer. He will be succeeded on the Lake Michigan by Capt. Robert Chestnut. Capt. O. Patenaude of the St. Magnus, will mount the bridge of the propeller Arabia, and Capt. J. Chestnut, late of the Arabia, will command the propeller Melbourne, of the new Toledo Montreal Canadian line. Capts. Zealand and Sharp will sail the Toronto steamers the same as last year. Capt. Malcolmson, who commanded the Acadia last year, will go on the Ocean this year.

In response to a telegram from Com. Wolf, Capt. Dunham last Thursday evening dispatched his barge tug T. T. Morford to Milwaukee from Chicago, and early Friday morning she led the way Chicagoward with the steamers Fred Pabst and W. H. Wolf in her wake. The services of the Morford were required to break the newly-formed ice in advance of the steamers, so that their unironed hulls might suffer no damage from that source. The Wolf and Pabst will take on corn cargoes at Chicago and then return to Milwaukee.

Considerable field ice exists at the head of Lake Michigan, whither it has been driven by northerly winds. Last week the fishing tug McMillen got into some of this ice off St. Joseph, Mich., and coming in contact with a heavy cake had a hole stove in her bow. The water poured through the break until the fire in the furnace had nearly been reached when the crew succeeded in getting a canvas jacket over the break and thus stopped the leak so that the tug's syphon could control it. The McMillen was home-ward-bound with a haul of 2,000 pounds of fish at the time of the accident.

WITH THE YACHTSMEN.

The New York Yacht Club is hanging in the wind on the question of accepting the application of Mrs. Lucy C. Carnegie for membership in that organization.

A fine new yacht will be added to the Cleveland fleet next summer. It is now under construction in the shipyard of the Cleveland Sawmill & Lumber Co. The owners of the boat are E. W. Radder and G. W. Luetkemeyer. She will be modeled after the lines of the Vigilant. The length will be forty-two feet, width of beam nine and a half feet, and draft five feet. She will carry a center-board and will be cutter rigged. A commodious cabin will be finely furnished. The new yacht will bear the name Commodore Gardner, in honor of Hon. George W. Gardner.

The meeting to be held in Cleveland for the purpose of forming an interlake yachting association, will not be called for some time. The Cleveland Yacht Club desires to give a banquet in honor of the delegates from the clubs in other cities on the day of the conference. No banquet of yachtsmen, however, would be complete unless Commodore George W. Gardner was at the table. Mr. Gardner is absent from the city, and inasmuch as he is the foremost yachtsman on the chain of lakes, it is desired that he act as toastmaster at the banquet. This is one reason given for the postponement of the meeting. Another cause for the delay is that Hon. W. J. White cannot at present come to the city, and his presence is desired at the conference. Then, too, the Michigan Yacht Club, one of the strongest yachting organizations on the lakes, has been in the courts. An interlake associotion cannot well be formed without that club's co-operation, and it is not now in a position to send delegates to Cleveland. It is anticipated that the conference will take place in the early spring.

H. Martland Kersey, Lord Dunraven's representative in this country, announces that the Valkyrie will start from Brooklyn on May 1, for home. She will go direct to the Clyde and will be fitted out at once for the earlier spring races on the Thames. The crew will leave Livepool on the steamer Majestic on April 4, and once here they will prepare the racer for sea. Mr. Kersey said that he had advised Lord Dunraven to take the boat back, as he was informed that both the Vigilant and Colonia were for sale and would not race, and that Gen. Payne was undecided about the Jubilee.

Commander Hodgett has brought out a new three keeled boat at Cowes. The first trial, which was near London, February 16, excited the interest of yachtsmen. As the wind was high it was hardly possible, however, to test the ability of the new model to counteract the tendency to roll in heavy seas. A notable feature of the boat's work was the absence of sidewash. She sailed close to the wind, ran well, was quick in stays and turned in her own length. Among the other advantages claimed for her are increased stability, greater carrying capacity, high speed and greater ease in handling and steering.

It is rumored that Lord Dunraven will build a new yacht and challenge again for the America's cup; the races to be sailed, probably, next season. The lines for the new contestant will not be laid down until the Valkyrie in her improved form shall have tried conclusions with the big sloops next season, as it is hoped that much will be learned through the prospective races that will prove of value in designing the new racer. Work on the Valkyrie, now at Tebo's dock, South Brooklyn, is progressing rapidly.—*The Rudder.*

The young Canadian designer, Mr. A. G. Cuthbert has three racers from his own plans which he is building at his yard at the foot of Bathurst street, Toronto One is for the 25 foot class, a keel craft of 22 feet 1. w. 1., 36 feet over all, with a sail area of 850 square feet, exclusive of balloon jib or spinnaker. The construction is light, but seemingly well disposed for strength, giving a large percentage for ballast, being a bulb lead keel of 4,400 pounds. In this yacht there is a double deck, giving with a half-inch in thickness the strength of an ordinary heavy deck and the lightness of a canvassed one. Her sister yacht is a center-board cutter of 22 feet l. w. l., 38 feet over all, in which the board, a 650 pound iron plate, houses below the floor, but drops to 8 feet below the surface, also having 850 square feet of sail, the same water line length and sail area being purposly taken, to prove for himself which is the faster type, or, in a word, the question of Valkyrie or Vigilant over again in a small class. The designer calculates that the center-boarder, with less draft of body, more beam and 600 pounds less ballast, has, through her other extreme features, equally the power to carry sail as the cutter, and, as in all other points possible they are the same, there should be very interesting racing between them. Both yachts are for Toronto parties. The third is for a syndicate of Hamilton gentlemen. Her length over all is 46 feet 3 inches, and though the water line is short, so as to allow a large sail area, yet with her, as the others, at the general angle of heel in racing there is an increase of over 10 per cent. not counting the extra length gained through the reaching in a sea and rising of the water. She is for the 30 foot class. Her general construction and finish will be the same as on the others, and she will be seen in all races for which she is eligible, and is to be completed in time for any which may occur on the 24th of May. Mr. Cuthbert has been experimenting with a new idea in hollow spars, which may adorn the new boats.

FLOTSAM, JETSAM AND LAGAN.

A cartoon in *Punch*, entitled "Confiences," represents a couple of sailors reading their daily newspapers, side by side. One of them, John Bull, exclaims, indignantly: "Did you ever see anything worse than my navy?" The other, Jean Crapaud, his eyes still fixed on the latest batch of Lockroy's disclosures, answers: "Yes—mine."

A railway employe in a large sense occupies, in connection with land transportation, the position of a sailor in water transportion, and, until the time of his engagement is ended, and he can leave the service without in any way embarrassing it, he should be under the same restrictions; but that in no sense constitutes slavery. He is perfectly free as to the contracting of the obligations, but when once voluntarily entered into, he should be compelled to perform them—*The Raiway Review.*

The Dirigo, the first steel sailing ship built in America, and the 95th vessel constructed by the firm of A. Sewall & Co., was successfully launched last Saturday afternoon. She will be commanded by Capt. Geo. W. Goodwin, late of the ship Sterling, and is designed by Mr. J. F. Waddington to carry 4,500 tons dead weight on a 32′ 6″ draft. She is a four-master, like her predecesfor, the Roanoke, and the first three masts will be square-rigged. She will spread 12,000 square yards of canvas. Her principal dimensions are: Length, 312′, beam 45′, depth 26′, gross tonnage 3,004.80, net tonnage 2,855.79.

Two valuable tables have been compiled at the Naval Bureau of Steam Engineering, one being accurate data of all the ships of the new navy, including full performance information, and showing at a glance what any ship has done, with all the functions of the performance required for intelligent discussion of the results. The other table is a complete setting forth of the data relating to the propellers of each ship of the navy, giving the functions in particular detail. Taken altogether these tables are of great value and will be widely sought after.

Some trials have just been made at Kiel on board of the German war vessel Worth, with an electrically lighted life buoy, the invention of Capt. Melter. The buoy was thrown overboard when the vessel was proceeding at a speed of about sixteen knots. For a space of about 12 seconds it was lost in the eddy currents caused by the twin screws of the vessel, but then reappeared. The new life buoy will be found useful at night, and the experiments resulted so sucessfully that it is probable that it will be adopted generally in the German navy.

Srcretary Herbert is considering the question as to who owns the scrap nickel steel which accumulates in the manufacture of armor plates and appurtenances for the navy from material belonging to the government. The government claims that in the manufacture of armor either the scrap should be employed or credit for its money value should be allowed. On the other hand, the armor manufacturers claim that they cannot use the scrap steel without going to considerable extra expense, and that they should not be required to do so without a fair compensation. The Carnegies now have on hand about 2,000 tons of scrap steel, and the Bethlehem Co. has about 2,200 tons, and nickel steel costs the government about $500 a ton.

A FINE SIDE-WHEELER.

The largest steamer ever launched on Lake Ontario, slid off the ways at Hamilton, Ont., May 2, 1893. She was the fine new side-wheeler Chippewa, built by Wm. Hendrie from the plans, and under the general supervision of Mr. Frank E. Kirby, of Detroit. The Chippewa is 311 feet in length over all, with 307 feet on the deck, and 302 feet between perpendiculars, her moulded beam is 36 feet, while over the guards, at amidships, she is 67 feet wide; her depth is 13 feet 3 inches. Her hull is of steel, put together in the most perfect manner. Her engines are from the celebrated firm of W. Fletcher & Co., New York, and are of the walking beam type. They are 3100 horse-power, with 75 inch cylinders and 11 feet stroke. She has five boilers, each 21 feet long and 10 feet 4 inches in diameter, and has a separate engine for electric lighting, forced draught, and all the latest improvements in the way of engine and boiler-room fittings. In the way of construction and finish she is equal to anything on the lakes, and no expense was spared to fit her for the trade between Toronto and Niagara Falls, in which she came out soon enough to engage during the latter part of last season. She is licensed to carry 2,000 passengers in the lake, and can easily accommodate 3,000 for river service.

Below deck, forward, between water tight boilers, are the crew's quarters, with accommodations for sixteen deck hands and firemen. Aft these are the officers' quarters on the port side and the deck-hands' and firemen's mess-room on the starboard side, each with separate stairways. Aft again are the officers' quarters, well fitted up, and with commodious state rooms. Still aft is the forward boiler room, then the engine room, and then the aft engine room, with coal bunkers in each side. Then, with easy stairs from the main deck, is the dining room with a large kitchen on the port, and pantry on the starboard side, each with separate stairs and perfectly ventilated. Aft are the sleeping quarters for the waiters and others, with some storage room.

On the main deck forward is the steam windlass and capstan, and a large smoking-room, with the steam steerer in the center, immediately aft. The smoking room is finished in quartered oak paneling. Aft of this is a room almost 63 feet square, paneled and cased in quartered oak. Then come the stateroom for the engineers, the men's lavatory, and a large main saloon finished in mahogany panels. The purser's office is on the starboard side, and the baggage and porter's rooms on the port side. These are paneled in mahogany. The ladies' saloon, 32 by 50 feet, is handsomely finished in paneled mahogany, with carved moldings, hand-decorated ceiling, and plate glass mirrors, and with the latest conveniences and elaborate furnishing. On the promenade deck is a saloon 192 feet long, finished in quartered oak, and open deck room of 50 feet, both fore and aft. The trunk deck has a high arched ceiling, with skylights the entire length, and above it are the pilot-house and captain's stateroom. The upper cabin is also finished in mahogany, and the furnishings are in keeping with the fine work on the boat.

Last season the Chippewa made about twenty miles per hour, but her engines being new, she was not speeded. Next season, her owners expect her to prove the fastest boat in fresh water.

The Chippewa was built under the personal supervision of Mr. Robert Logan, at that time a member of the Toronto firm of Logan & Rankin, of Toronto, but now of Cleveland. Her boilers were constructed by the Hamilton Bridge Works Co., and the interior wood work came from the shops of the W. Wright Co., of Detroit. She is commanded by Capt. McGiffin, who formerly sailed the Cibola, of the same line. She is operated by the Niagara Navigation Co., Limited, of which Hon. Frank Smith is president. She plies between Niagara, Lewiston and Toronto.

LAKES OF NEW YORK.

Professor Albert P. Brigham, of Colgate University, lectured on the lakes in New York, at Ogdensburg, on the 20th.

Measured by geological periods of time, said the lecturer, lakes are not old. Oceans and rivers and mountains are ancient, but lakes are comparatively youthful and short lived. The basin fills up. Some of the Adirondack lakes have already turned into meadows, or "flys," as they are called. There are various theories as to the origin of Ontario and Erie. One is the warping of the newer rocks against the older. In thinking of the earth's surface we must always remember that it is never in a state of quiescence, but is continually straining to adjust itself anew. Glacial erasion may have scooped out these great basins. In the pre-glacial period a river may have been filled up in places by obstructions or by the warping of the earth's crust.

Champlain ought perhaps to be classed with the great lakes. It might be sighted as an illustration of the first throne of the formation of the basins of Ontario and Erie, lying as it does between the rocky bases of the Green and Adirondack mountains. Lake George is certainly an Adirondack lake. It is celebrated for its 220 islands, its clear water and its martial history, but we are ignorant of its geological history. The Adirondack lakes, in the main, lie northeastward and southwestward between mountains running in the same direction. They are at an altitude of from 1,500 to 4,000 feet. The finger lakes extend from Otsego to Chautauqua. Their origin was a combination of glacial obstruction and glacial excavation. Skaneateles is a type of these lakes. Its basin is a shallow bowl. For two or three miles from the foot the outlet has cut no channel for itself, it flows almost on a level. A pre-glacial stream must have flowed through this valley and have been dammed up to a depth of 50 or 75 feet by glacial obstruction. The rest of its depth of 300 feet is due to glacial obstruction Skaneateles is a young lake. Its outlet has not yet had time to cut a channel for itself. There are a vast number of small lakes, scarcely more than ponds, especially in Massachusetts, that are the result of glacial work. It would be difficult to say whether the preservation of our lakes or our forests was more important. Lakes have a great and beneficial climatic effect, modifying the temperature and by putting off two or three weeks the coming of frost enabling the fruits grown upon their shores to ripen fully.

The magnificent new steamer, now nearing completion, for the Fall River Line, will probably bear the name of Priscilla.

MARINE PATENTS.

515,021. Boat-Detaching Apparatus. Henry E. Rottmer, Washington, D. C. Filed August 14, 1893. (No model.)

CLAIM.—In combination in a boat-detaching apparatus, a rotary holding and releasing device for the fall, and the means for giving the same rotary movement, comprising the continuous flexible shafting conforming at its central portion to the boat's bottom and having upturned end portions carrying the rotary devices at their upper ends.

In combination, a boat-detaching apparatus, the continuous flexible shafting conforming to the boat's bottom, and having upturned end portions conforming to the ends of the boat, the latches pivoted at the ends of the boat and extending therefrom, and the means for retaining the said latches consisting of the rotary clutches each having an open top and an open inclined or vertical side to receive the latches, said clutches extending upwardly from the upturned ends of the flexible shaft.

In combination, the releasing device at the ends of the boat, the shafting between said devices, the pivoted lever for operating the shafting adapted to be turned down within the boat, and the pivoted guide bar for the lever.

515,029. Dredging machine. George H. Titcomb, Boston, Mass. Filed January 14, 1893. (No model.)

CLAIM.—A dredging machine, comprising in its construction a floating support, a telescopic frame pivotally connected therewith and composed of two sections, wheels carried by the two sections respectively, an endless carrier supported on said wheels, a shaft rotatable in bearings on one of the sections but movable longitudinally therewith, said shaft having a screw-threaded portion engaging a fixed nut carried by the other section, a worm-gear fixed on the shaft, and a worm engaging said gear and supported in bearings on the section of the telescopic frame in which the plain portion of the screw-shaft rotates; the combination of a floating support or vessel, a frame pivotally connected therewith, and a plurality of buckets connected in an endless series on said frame, the mouth of the buckets being inclined or beveled, so that one side of each bucket is in advance of the opposite side, some of the buckets being inclined in one direction and some in the opposite direction.

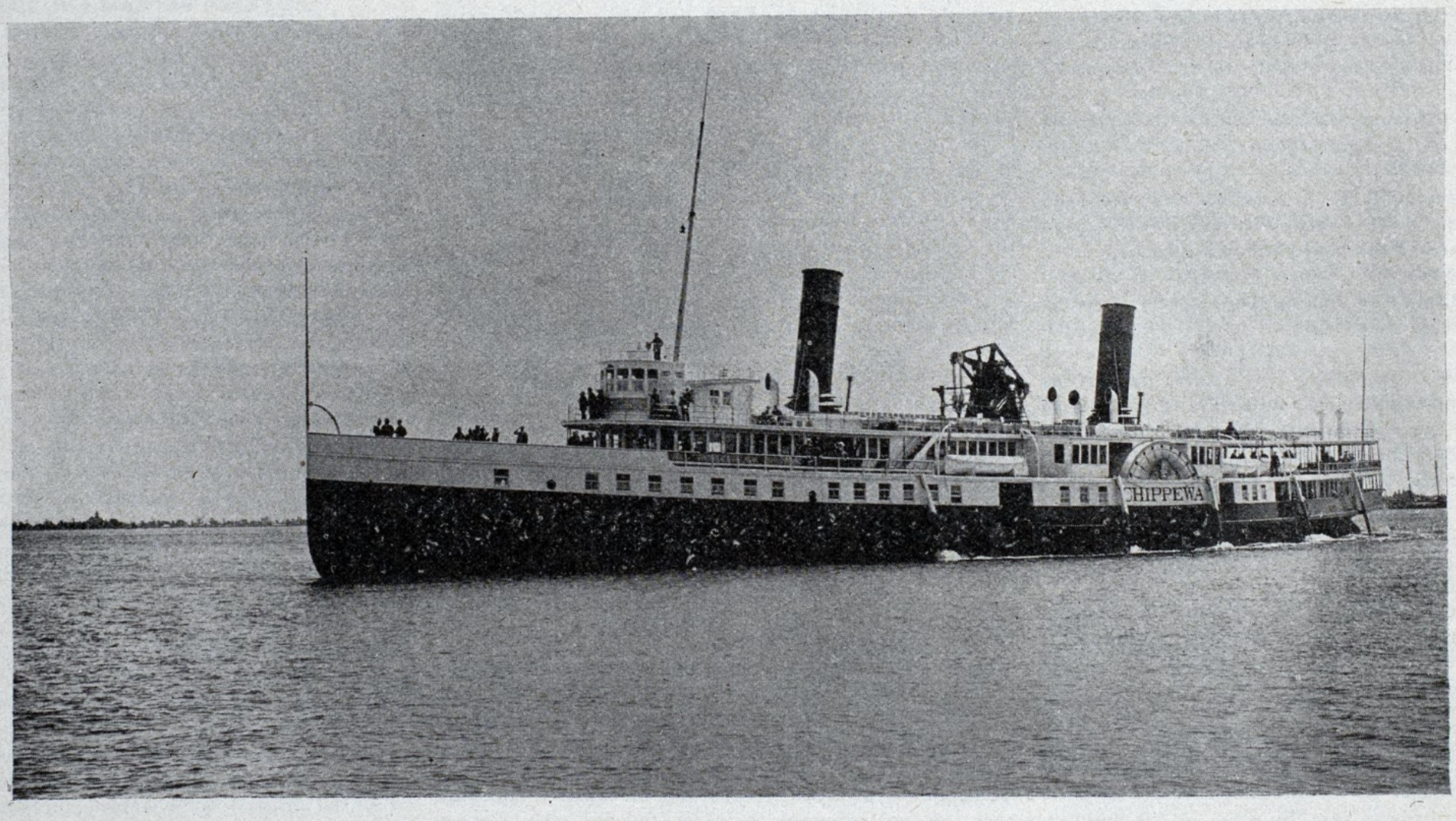
515,128. Sounding-lead. Peter T. Peterson, Brooklyn, N. Y. Filed Nov. 19, 1892. (No model.)

CLAIM.—The combination of a sounding lead with a sliding sleeve surrounding the same and adapted to be projected beyond its base.

The combination of a sounding-lead having a flange with a cylindrical sleeve, having the shoulder and flange and the sleeve or cap with the pin.

514,908. Boat. Josiah L. Burton, Martinsville, Ind. Filed May 19, 1893. (No model.)

CLAIM.—The combination is a sportsman's boat, of a water-tight compartment having communication with the water beneath the boat, the communicating tubes being provided with caps or plugs, and a cage within said compartment for the fish. The combination, in a sectional metallic sportsman's boat, of several sections having the longitudinal standing seams or ribs to the bottom, clips by which the several sections are united, and inner transverse ribs for stiffening and strengthening the same.



"NIAGARA NAVIGATION CO.'S STEAMER CHIPPEWA,"

FIRE BOATS ON THE GREAT LAKES.

Since the idea of protecting the water fronts of large cities, lumber docks, saw mills, etc., has been agitated, it has been found most practicable to do it by a floating water system in the form of properly designed boats, not only large enough to carry the propelling power and pumps, but to have other qualities, such as a proper model to break heavy ice, and more speed than is generally developed in boats of this size. Boats of this character must be exceedingly strong and well built, heavy plates being bolted on wooden boats to prevent ice from cutting the planking, and with a small amount of sheer, as the firemen must do considerable of their work from the decks, especially in close action. The shape forward must be designed to allow the boat to rise in case of very heavy ice, as it is often necessary to make runs that the boats of the necessarily small size cannot penetrate by steady running; hence, the backing out and exerting full power so that when the boat strikes she will rise on top of the ice and break it down. This applies particularly to breaking their way into narrow slips from the main stream. It has been found that a boat about 100 feet over all is as large as is practicable on the rivers of the Great Lakes, as the slips are generally 125 feet wide, and boats of this size can wind easily.

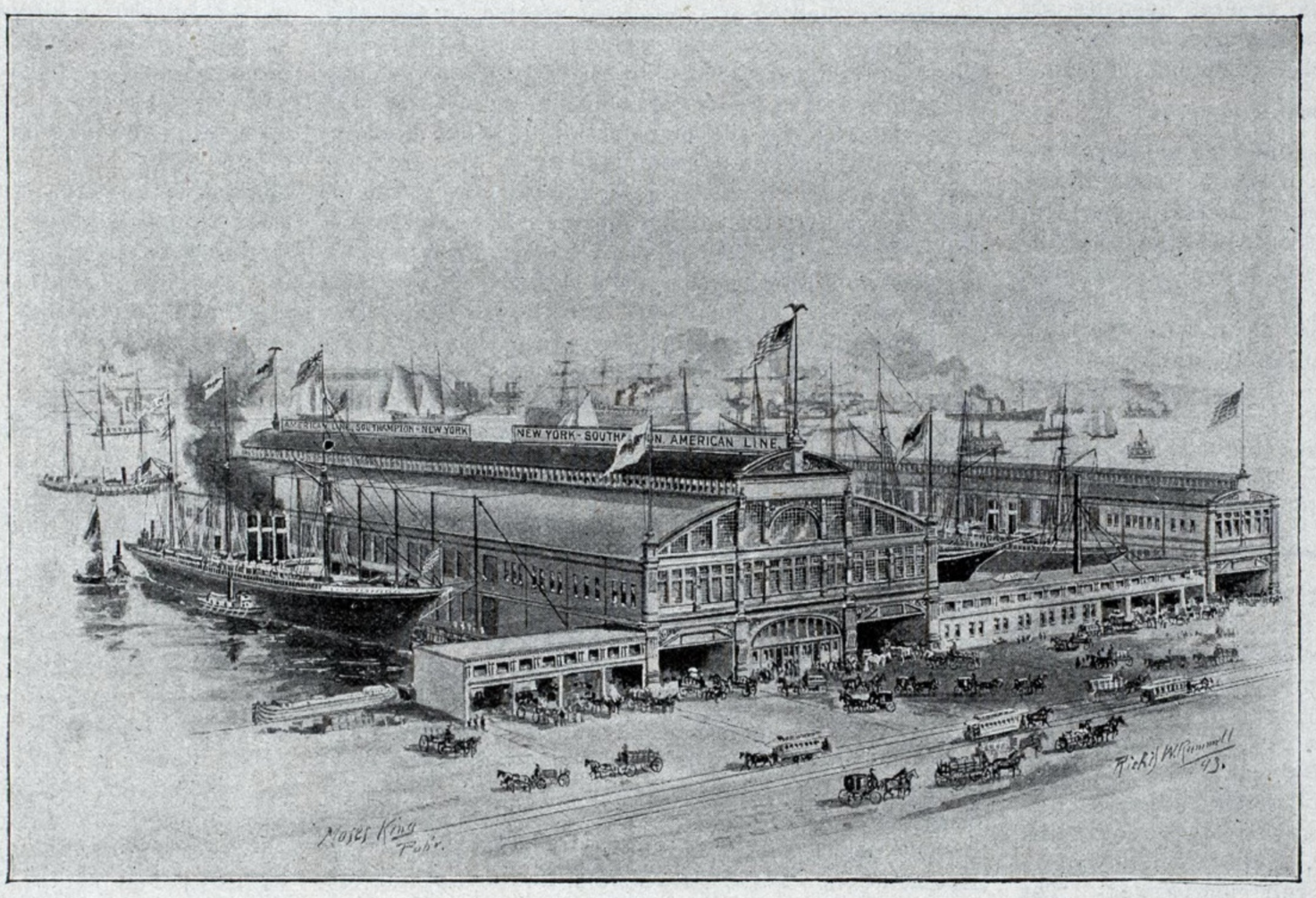
The subject of the supplement accompanying this issue is the latest of the fire boats already in use—the James Foley, No. 17, of the city of Milwaukee. This boat went into service the first of November, 1893, with a record of a lumber yard fire on the day of the preliminary trial. The builder had been testing the pumps, and while he was returning from the lake, Chief Foley discovered a fire a mile away. He ordered the boat to make the run and with just enough men to handle her, made a dash for first place, which was easily obtained. The lumber was ablaze along the dock between Fifth and Sixth streets, and a line could not be made fast. The bow of the boat was wedged into the pile of lumber and the engines kept running at a slow speed to hold the boat in place against the great backward force of the four-inch stream from the Universal Niagara Hydrant, which is operated from the forecastle deck. The water pressure was kept at 90 pounds continuously on both sets of pumps and engines running. The boiler holds 100 pounds steam easily. The side of the cabin and pilot house were charred, but continuous wetting saved the boat from burning. She never left the point of attack until the fire was blackened. The boat achieved a great reputation and was practically accepted. On the following day an official trial was made in the presence of the mayor and city officials, as well as thousands of other citizens. It was very cold and the throwing of many streams was not deemed necessary, but the principal work was done with a fancy stream—a four-inch nozzle. The design of the machinery of this boat is the same as the Cataract, of Milwaukee; the Yosemite, Chicago, Geyser and Fire Queen, of Chicago; all of which have proved great fire fighters. The machinery of all of these boats was designed by Charles F. Elmes Engineering Works, of Chicago.

The James Foley is 107 feet long over all by 24 feet beam, and draws 8 feet 2 inches aft and 7 feet 2 inches forward. The boiler is 9 feet in diameter by 16 feet in length, of the double furnace fire-box style, has 2,100 square feet of heating surface and 45 square feet of grate surface, and is allowed 125 pounds of steam. She was built by John Mohr & Sons, of Chicago. The propelling engines have two cylinders 18¼ by 20 inches, with steel columns and all working parts of forged iron and steel with composition bearings. The shafts are 7 inches in diameter, with the outboard bearing raised to 7¾ inches diameter. The wheel is of cast steel, 8 feet in diameter by 12 feet pitch, and the engine can turn it 165 revolutions per minute. The engines have steam reverse and improvements to allow of quick handling and quick starting from quarters. The cylinders are covered with brass, nickel plated, and all the details are highly finished. The boiler is fed with a large steam pump, through a copper coil heater, and has a Metropolitan injector as an auxiliary, with a separate feed connection to boiler. The syphons are large and there is a four-inch bilge connection from fire pumps, besides two 5-inch water syphons. There are two sets of direct acting quarter-crank fly-wheel pumps (two plungers each) with steam cylinder 16½ inches bore, and pumps 9½ inches bore by 12 inches stroke, and can make 250 revolutions per minute with safety. The general design is the same as the engines. The columns and all working parts are of steel. The pump linings, plungers, valve seats and bearings are of composition. The pumps set athwartships between engines and boiler, making the best arrangement for working either engines or pumps. The hull was built by Rieboldt, Wolter & Co., Sheboygan, Wis., planked with 3½ inch white oak and covered with steel plates above and below the water line. The forward plate is rabbitted into the stem iron and riveted through. The usual size hose used is 3½ inches inside diameter and 2 inch nozzles for short leads and 1¾ inch for very long leads. Some of the streams thrown by this floating water works are as follows:

One 4-inch stream, 545 feet.
Two 3-inch streams, each 400 feet.
Eight 2-inch streams, each 300 feet.
Twenty 1-inch streams, each 175 feet.

The Niagara Universal Hydrant, built by the Barry Manufacturing Co., of Muscatine, Iowa, is used on this boat and has play pipes for nozzles from 2 inches to 4 inches diameter. Mr. Elmes has so designed his engines and pumps that they are capable of the most severe work which is generally required in this class of machinery. The Foley has the Elmes patent steam steerer, which can handle the rudder under any circumstances, which is a great improvement over hand steering, especially in this class of boat, where quick action is so important.

The equipment of the Foley consists of 4,000 feet of 3½-inch hose and 2,000 feet of 2½-inch hose, with necessary pipes, jacks and large water syphons and suction hose for the same, etc. With two boats at Milwaukee, four at Chicago, one in Detroit, two in Cleveland, two in Buffalo and with the numerous tugs about our saw mills equipped with large fire pumps and hose, it is safe to say that the great lake ports are quite up to the standard of fire protection, if not ahead of the world.



THE INTERNATIONAL NAVIGATION CO.'S NEW AMERICAN LINE PIER, NEW YORK.

This pier was described in the MARINE RECORD of February 8. It was erected at the foot of Fulton street at the cost of $300 000. Passengers board the steamer by passing from comfortable waiting rooms on the second floor over an almost horizontal gangplank to the decks of the steamships. The pier extends 720 feet into the Hudson, and has a uniform width of 125 feet. This is the company for which two new fine ships are now building at the Cramps' Shipyard, Philadelphia, The electrotype is kindly furnished by the Electrical Engineer, New York.

THE MARINE RECORD, published weekly at Cleveland, O., is a newsy journal devoted to commerce and engineering. The issue of February 1st contains a short but interesting account of the starting of the great power plant of the Niagara Falls Paper Co. This enterprising corporation has harnessed the cataract to three turbine wheels of 1,100 horse power each. Other articles in this number are entitled: An Ocean Whaleback Line, A Fearful Experience, and Locating Derelict Ships. THE MARINE RECORD should be of special interest to mariners of the Great Lakes.—*The Rudder.*

An exchange very truthfully remarks that "literary ability in any journalistic enterprise is of great importance, but literary ability alone is a very poor qualification for the editorial responsibilities of a trade paper. It is far more important that the editor should understand the trades discussed than that he should be able to write gracefully or with a poetic fervor."

THE CAPTAIN OF AN OCEAN TRAMP.

On a chartered ship there is usually a supercargo who lives in the cabin and who might be useful as a companion; but as he and the captain represent different interests, too much familiarity is not generally thought proper. The supercargo represents the charterers and has entire charge of the cargo, while the captain represents the owners and has absolute control of the ship. There is no doubt about the comparative social standing of every member of the crew of an ocean tramp while aboard ship. The captain stands alone—unapproachable, infallible. Every member of the crew must say Sir to him and fly when he speaks. He sits at the head of the cabin table, with the first mate at his left and the passengers, if there are any, at his right. When they have finished a meal the second mate comes in and eats, always with an apologetic air for such an intrusion. No other person aboard ship would think of eating in the cabin, or even of entering it without a special invitation, except, of course, the supercargo, who is on the same footing as a cabin passenger while the vessel is at sea. The chief engineer and his two assistants have their own cabin, their own table, even their own steward. One of the assistant engineers was a son of one of the principal owners, but he would have been very much surprised at an invitation to enter the captain's cabin. The stewart eats in the pantry, and the crew of course, in the forecastle. The two mates, the steward, and the engineer and his two assistants are the only permanent members of the crews; all the others are shipped for each voyage, and discharged when the voyage is ended. The steward is in reality little more than a waiter and dish-washer, and the captain is his own steward, buying all the ship's supplies and seeing that they are on board before sailing. It is fortunate that this is the custom, for the steward is in nearly every case a confirmed tippler. One of the captain's first duties after sailing is to pick him up from the pantry floor and shake and cuff him into partial consciousness. The next is to search the pantry, the storeroom, and the steward's stateroom for concealed bottles of liquor. Such a steward, no doubt, should be discharged; but the trouble is that the next one would certainly be as bad, and very likely worse. Stewards on tramp steamers are in many cases cooks or chief stewards from passenger ships who have been discharged for drunkenness. Ordinarily the steward would be custodian of the medicine chest, but on an ocean tramp the captain must keep the keys. If the steward is allowed to go alone to the chest some of the bottles will be drained dry, and they will invariably be those containing some admixture of alcohol.

In dangerous weather, the competent captain of an ocean tramp does not leave the bridge, remaining there sometimes forty-eight or seventy-two hours without relief. His mates may be good sailors, but he knows that he is a better. They may be faithful, but the company looks to the captain. On the bridge he eats his meals and sometimes catches a brief nap, but on the bridge he waits for smoother weather. If a sailor breaks a limb, he put it in splints. If anybody is sick, he gives him medicine. If anybody malingers, and feigns sickness in the hope of getting a drink of rum, he prepares a dose of Epsom salts and sees that they are swallowed. If two of the men fall to fighting, he thrashes them both first, and inquires into the merits of the case afterward. He can not only whip any man aboard the ship, but the whole crew collectively, and they know it. He has loaded firearms in his cabin, but would scorn to use them as long as his fists hold. In case of accident he refuses assistance while there is a plank left, because assistance means salvage. In case of death he is the clergyman, and when there are passengers he is sometimes the *accoucheur*. A dozen men are employed on a big passenger ship to do the work that is done by the captain of an ocean tramp.

A register is being prepared of American shipping, which will have names of all sail vessels above thirty tons net, and of all steam vessels above ten tons net. Captains' names will appear under the names of their vessels.

The Marine Record,

ESTABLISHED 1878.

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CLEVELAND, O., MARCH 1, 1894.

THE Inland Lloyds' Vessel Register for 1894 will be issued from Cleveland, O. The change is in accordance with the compromise suggested by THE RECORD a year ago, when the headquarters were removed from Buffalo to Detroit. Cleveland vessel owners will be pleased to welcome back an old time office, and no doubt Lloyds' Vessel Register may be published in Cleveland for years to come; but its eventual location will gravitate towards Chicago, where so many of the general agencies are already established. Cleveland, it is understood is a compromise as a central port between Buffalo and Chicago.

WE take pleasure in commending the action of the Board of Supervising Inspectors of Steam Vessels in recommending the use of a danger or distress signal for lake use. Hitherto there has been no authorized signal signifying distress, and a sail vessel in want of immediate assistance at night was liable to be slighted by a passing steamer, especially if near a port or in with the land, a steamer broke down and in want of assistance, was also subject to the same inattention. On general principles it is well that a specific signal for danger or distress should become known on the lakes, and we hope that the code will soon become mandatory, instead of optional, as the simple recommendation would have it appear.

CONGRESSMAN ELLIS, of Oregon, has introduced a bill in the House of Representatives, to make naphtha launches amenable to the steamboat inspection law, and there are a number of Congressmen who might be better employed, who are said to be trying to force its passage. It is hardly likely to become a law, as it is evidently started by malice, or by competition of a very poor sort. There is just as much reason in requiring a licensed officer to operate a gasoline stove as there is to require the employment of a licensed officer, or the taking out of an engineer's license in order to run such a boat. The naphtha launch is increasing in popularity every year, and it is yearly made a simpler craft to manage, until there is left little room for improvement. The passage of such a law would result in greatly decreasing their use, and this would work no good to anybody. Naphtha launch explosions are so very rare that there is as good a chance for life in one of them as in pursuing any of the ordinary vocations of life.

THERE is an element of danger, oweing to the lack of fog signals for vessels in tow. The same may be said relative to the ends of long rafts of timber, the rear end of either and both being of course the objective point. According to rules now in force the steamer may denote that she has something in tow, but the last vessel in a tow of say four barges is rendered somewhat helpless by being unable to signify that she is attached to a steamer whose stern is for all purposes requiring action under the "rules of the road," fully one-third of a mile distant from the schooner or barges' taffrail. There are many cases where steamers have run upon or fouled in passing and crossing the ends of long rafts, and, although few instances may be cited where vessels have collided in passing a long tow, yet each season records scores of hair breadth escapes under the above conditions. Of course any action is justifiable in order to avoid immediate danger, hence, tow ropes may be shipped, the vessel given a wide sheer or an anchor dropped under foot, etc., in trying to keep clear of collsion, and such cases are not infrequent. In view of the distance covered by the system of lake towing we would suggest that the stern barge or last vessel in the tow be granted some danger signal optional or compulsory, whereby she could make her presence known in a fog.

NAVAL COURTS OF INQUIRY.

Relative to the naval court of inquiry now in session at the Brooklyn Navy Yard, every man who has had absolute charge of valuable floating property, either naval or mercantile, will no doubt sympathize with Capt. Oscar F. Heyerman, U. S. N., in the recent casualty whereby the abandonment and probably total loss of the historical warship Kearsarge was brought about.

Capt. Heyerman, previous to being appointed to his late command, was stationed at Detroit, Mich., as light-house inspector for that district, and, although he was well and favorably known, his determined advocacy of Col. Ludlow's project for lighting the Sault Ste. Marie river caused his removal from the station and eventual change of detail in his naval career.

The late captain of the Kearsarge has been in the navy since 1861. He has commanded the memorable ships Yantic and Pensacola, therefore, his technical skill and ability to rightly apply his long-earned experience are points beyond question. In fact, it would have been considered the very acme of presumption for any one engaged in the mercantile marine interests to doubt the ability of such an officer to at any time locate his ship within a circle the diameter of which equaled the length of his vessel. Nor to effect this navigational feat would it have been thought necessary to drive piles and hang Chinese lanterns on them so as to keep the vessel in mid-channel, as suggested recently by a naval officer relative to lake navigation.

To come back to our caption, it is but necessary to state that the official inquiry now being held on the loss of the Kearsarge will furnish such testimony as to forever avoid a similar casualty on Roncador Reef, and we are bound to say that if a proper investigation had been made after the recent stranding of a merchant steamer on that reef, the officers of the Kearsarge would probably have been so placed on their guard when in that vicinity as to have avoided the loss of their noble old ship; so does one fault uncorrected lead to the perpetration of other blunders and casualties, at times involving loss of life and property. The fault we speak of is attributable to the lax rules governing the merchant marine service, millions of dollars worth of floating property having been steadily sacrificed and untold lives sent to eternity for "lo these many years," without any one knowing or seeming to care about the why and wherefore of the repeated holocausts, until recently THE RECORD, ably seconded by its New York contemporary, *Seaboard*, has been instrumental in having the subordinate officers of the steamboat inspection service instructed and circularized to hold inquiries on all wrecks, important collisions where accompanied by loss of life, etc., so that we might learn from and by the failings of those who have gone before.

The loss of the U. S. S. Kearsarge on Roncador Reef affects her owners—the nation—and her officers—the wards of the nation—only in the same degree as the culpable loss of a merchant ship would her private owners and officers under a properly constituted department of marine. It is no palliation to herald the fact that Capt. Heyerman broke down and wept while telling the story of the wreck; he is not the first man to lose control of his feelings, nor of his vessel; such things are of daily occurrence, and a "stiff upper lip" is in order under both circumstances. These cases should, for the best interests of all concerned, now and in the future, be handled without gloves. The court has the very best of evidence regarding the ultimate result of the wanderings of a vessel from her course, when they find her perched on the rocks or lying helplessly stranded on a beach, shoal or reef. If the personal oaths of those who may be culpable ever become inadmissible as evidence, a photograph of the castaway ship ought to satisfy the court of the vessel's final disposal and position.

It is with no carping spirit of criticism directed towards our navigational naval talent that we enlarge upon the loss of the Kearsarge; yet, the writer was almost near enough to hear the reports from the guns of the contestants when the noble old hull sent the Alabama to the bottom. The memorable and historical, well-handled and excellently-fought ship has no doubt had her last commission in peace or war, and from the evidence of her loss thus far adduced a few wrinkles, if not a valuable lesson, may be taken aboard by the careful threader of "the trackless waste," although we must candidly admit that few merchant ships are so extravagantly navigated. According to Capt. Heyerman's statement, lookouts had been placed on the topgallant yards all afternoon—it is needless to say that merchant ships could not afford such a waste of time and labor, nor in the majority of cases could a topgallant yard elevation be found. Nothing being sighted during the handful of hours the lookouts were kept, an officer was sent aloft to scan the horizon at 5:30 p. m.; at 6:50 p. m. the old Kearsarge piled herself up and the crew almost waded ashore to the dry reef towards which so accurate a course had been steered with the most charming disregard of distance run, as evidenced by the lookouts kept, that ever we have witnessed. In two minutes after the lookouts reported broken water the U. S. S. Kearsarge was planted.

Under the above conditions it would seem that the vicinity of Roncador Reef was no place for cargo or passenger-carrying merchant vessels to attempt to navigate; but, regarding this view we hope to learn that the several days which all hands spent on the reef gave such an excellent opportunity for observations as to establish not only a most wonderful theory of converging surface currents powerful contrary under-tows and singularly acting in-draughts, coupled with submarine magnetic rocks causing a wide deviation of the compasses, with other agencies of a like nature which would strand any vessel If these features are established and their economy subscribed to, underwriters, owners and mariners, as well as the naval tonnage of the world, will have been beneficially interested in the last lesson taught by the castaway warship.

SHIPBUILDING.

It is almost beyond the pale of ridicule to hear a single lake port eulogized as second only to the Clyde in shipbuilding industries. Comparisons are usually odious, but this feature is more unusually obnoxious than others, and especially is it annoying when the untravelled self important asserts with an undue share of asseveration that statistics "can't lie," and forthwith ignorantly proceeds to gather data in support of his indefensible contention. At stated intervals we have shown our readers the volume of foreign built tonnage so that they might become succinctly conversant with this special industry as carried on by other maritime nations. We have also taken occasion to correct departmental reports when a too sanguine census gatherer has turned in easily exploded statements, and yet, even in an important document, we find a lake port denominated as second only to the Clyde in its shipbuilding interests.

Well, after all, there may be a degree of similarity—perhaps spots may be picked out on the Clyde to correspond with the area and output of a lake shipyard, or even two, and yet, if it is considered that from the "tail of the bank," or from Greenock to Glasgow, there is a distance of upwards of twenty miles all lined with Clyde river shipyards, it is possible to imagine that quite a large industry is being carried on there, notwithstanding it is common to hear the Clyde spoken of as if it was under one municipality.

The Clyde, however, is not the only shipbuilding center from which our ancient and present competitor for maritime supremacy turns out the world's oversea tonnage. There are the Tyne, Wear, Tees, Belfast and ports north of the River Mersey, all actively engaged in producing iron and steel vessels. According to Lloyd's Register, the total output of the United Kingdom for 1893 was 554 vessels of 882,281 tons, including eighteen naval vessels. In 1889 there were launched a total of 690 vessels, having a total of 1,209,361 tons.

It is significant that during the year just passed 98.4 per cent. of the British tonnage was built of steel and only 1.4 per cent. of iron. On January 1st, 1894, there were under construction in the United Kingdom a total of 333 vessels of 641,981 tons, and 103 preparing (*i. e.*, ordered but not commenced). Now, let us glance at the work on the Clyde January 1st, 1894, and we find 99 vessels with a gross tonnage of 203,227. On the Tyne 56 with a tonnage of 139,352; the Wear 36, tonnage 96,722; Middlesbro' and Stockton 21, with a tonnage of 44,571; Belfast and Londonderry, 16, tonnage 63,510; Hartlepool and Whitby 16, tonnage 43,619; Mersey 5, tonnage, 3,680, and so on to ports of minor importance in size and volume of shipbuilding.

The Clyde shipbuilding in active work January 1st, 1894, aggregated a mean of 102 vessels each of 2,000 tons capacity. Now, in all fairness, what lake port compares with this showing.

It is commendable from every standpoint to assert that American shipbuilding centers on the lakes, and that lake tonnage is the backbone of the country's coastal mercantile marine. Further may we point with justness and pride to the volume of commerce using the St. Mary's Falls Canal and the amazing number of entrances and clearances at the larger ports, notably Chicago, yet, while heralding the phenomenal progress and growth of shipbuilding and maritime transportation, let us keep strictly within the bounds of reason, common sense and truth, or as near thereto as circumstances in a data gathering sense will permit.

A MUCH NEEDED LAW.

Senator Calvin Brice has introduced an amendment to Section 3117 of the Revised Statutes, which, if enacted, will do a great deal toward an accurate demonstration of the great extent of the commerce of the lakes, as well as toward securing accurate reports about the same. Indifference on the part of vessel captains or agents in regard to giving information regarding the amount of freight taken on or discharged at way ports has been a continual source of annoyance and hindrance to those engaged in collecting statistics, even when the object of these statistics was to secure greater harbor and channel improvements, of which the vessel man is the direct beneficiary.

The law provides for a requirement which is much needed, but at the same t me prov d-s that the required information can be furnished by some one else beside the captain, thus obviating port delays. It is to be hoped that the bill, which involves no appropriation, will be enacted into law in time to force captains and owners to begin the season properly, for their own benefit. The proposed amendment will change the section above referred to read as follows:

"If any vessel so enrolled or licensed shall touch at any intermediate port in the United States and there discharge cargo taken on board at an American port, or at such intermediate port shall take on board cargo destined for an American port, the master, owner, or agent of such vessel shall report such lading or unlading at such intermediate port within twenty-four hours from the time such lading or unlading of cargo is completed. by delivering to the collector at such intermediate port a manifest setting forth the name and tonnage of such vessel and the name of the master thereof, with a description of the kind and quantity of cargo, laden or unladen, at such intermediate port and the name of ports from which such cargo was received or to which it was shipped, as the case may be; and the master of such vessel shall enter the same on his manifest obtained at the original port of departure, which he shall deliver to the collector at the port at which the unlading of the cargo is completed, within twenty-four hours after arrival, and shall subscribe and make oath as to the truth and correctness of the same. In case any vessel so enrolled or licensed shall touch at any intermediate port, and not take on board or discharge any cargo, the master, owner, or agent of such vessel shall deliver to the collector of such intermediate port a manifest setting forth that fact. All manifests herein provided for at any intermediate port shall be subscribed by the master, owner or agent of such vessel, who shall make oath as to the truth and correctness of same."

UNIONISM.

The past week has developed a new organization at lake ports ycleped the Lake-Faring Men's Union. There is no gainsaying the truism that in union there is strength, and the world-over unionism is found to be the order of the day.

The past decade has witnessed the rise and fall of many apparently united marine labor circles, and the old time lesson has been taught over and over again "that it is hard to kick against the pricks;" further, while seeing the better, the worse course has not infrequently been pursued in the effort to bring about satisfactory results.

The spirit and action of rule or ruin which once too often applied makes "the galled jade wince," is the common pitfall which ultimately envelops many labor clubs and unions organized even for laudable purposes, and too late it is learned that through arbitrary and ill-timed measures the luff is choked of the "goose which laid the golden eggs."

We have enunciated the foregoing in order to state that the net earnings of lake freight vessels will never approach in the future what they have in the past, and with this feature in full view a reduction in the running expenses seems to be clearly signaled all along the line. Economy of transportation is heralded to those who desire to be classed among the "survival of the fittest," nor can obsolete tonnage expect to compete in the future with modern equipped and economically handled steamers, all of which we think goes to show that builders, owners, managers and brokers, as well as every grade employed in the lake-faring community, will find it more than difficult to hold up to that standard which is now thought to be but a just and equitable return for an outlay incurred or the successful rendering of faithful service.

Notwithstanding the foregoing we are earnest in the belief that lake-faring men are eminently entitled to every cent which the economy of transportation will permit as a return for a performance of the duties of their arduous calling. And should ever the commerce of the lakes fail to furnish an adequate recompense to those who are practically engaged in carrying it on, no one could possibly be averse to measures which would bring about an equitable adjustment of transportation rates in each relative department of expenditures connected with the adventure of commerce and transportation over the lakes.

If unionism in any form can at such times accomplish so desirable a consummation, then we welcome the unity; but, if on the other hand, a combination is being fostered which is liable to act derogatory to the common general interests, character, welfare and future progress of lake commerce, it ought not to be allowed to gain an ascendancy in the ranks of progressive lake-farers acting in unison with the spirit of the times, as opposed to the retrospective views of visionarie's who are usually prone to seek contentment in the discontent of gazing over their shoulders at the "good old time" which to the properly balanced mind is veritably found in the time present.

Unionism, founded on a liberal basis of equities, providing the widest protection to the craft at large, strictly acknowledged and wisely administered, is without doubt a beneficent feature among any class of men as well as seamen, nor can logical arguments disprove, much less knock out a plank of this oft-asserted platform of unionism. There, however, we stop insofar as seamen are concerned, unable to span the bridge between idealism and realism. Retrogression ensues, personalism, if we may coin a word, creeps in or bounces in and upsets discreet premeditations and with an assault from the outside either of long standing or courting immediate action, the edifice gives way and labor or skill is again thrown unrestricted on the market to seek its intrinsic value, singular or competitive. Such is the sailor's lot when following his employment closely, so as to work at least ten out of the twelve months in the year. What future, therefore, has a lake-farers' union? With masters, engineers, and other officers the circumstances are of course different. They have organizations of their own which are highly prosperous and generally commendable throughout.

REVERSING SCREW PROPELLERS.

At a meeting of the Institute of Marine Engineers recently held at Stratford, England, a paper by Mr. Robert McGlasson was read on "Screw Propellers, Reversing Screw Propellers, and Non-Reversible Engines."

Mr. McGlasson, in the course of his paper, said: "The propeller is the chameleon of marine engineering. We might as well search for a fixed spanner to suit all sized nuts, or a sail area that will suit all winds, as for a fixed propeller which will suit all conditions. The screws are of necessity continually operating under altered conditions of running, and the developed propulsive area, and the power to suit it, must be capable of change to meet them before we can expect to secure economical propulsion or can consider that we have obtained a screw propeller with which a marine engineer can be satisfied. We cannot, without risk, reverse the motion of the revolving masses constituting engines and propellers and shafts very quickly in a really quick-speed engine of any size. So I suggest that we let it run always at practically the same rate in one direction, whereby we shall not only gain mechanically, but commercially also. Increased revolutions, also, comprehend reductions in weight and space occupied, reduction in the weight of overhanging screws and fittings, and in the number and width of blades, and will permit of greater tread of water under which the screws may operate. These suggestions have begun to be to some extent adopted in the more modern types, but much more can be safely done in this direction by the adoption of the reversing propellers and non-reversing engines. By these means we can also alter speed, stop, and reverse, the engines continuing to turn in but one direction, with only the necessary expenditure of power at whatever angle the blades may be placed. In short, we can hereby vary the developed propulsive area from the maximum to *nil* in either direction, thus insuring the utmost economy. The best modern practice has already corroborated the necessity of doing what is suggested; "trial and error" and "cutting and changing" of screws in "crack" boats still goes on, and provision is made in all the best new vessels of most nations for altering the pitch in dock. Provide for doing this in the water, to meet every condition, and with the engines running, so that the best pitch can be ascertained at speed, and the developed propulsive area altered to suit the then conditions of the ship and surroundings while running. With regard to the engines, to be able to discard a large quantity of gear and run always in one direction offers very material advantages, economically affecting the working, the wear and tear, and it also permits of simplification in the arrangement of various parts. Nothing is imported equal to what is discarded from the engine, for the gear required for the reversing propeller is only active when the developed propulsive area is being changed or reversed; not constantly—whether wanted or not—as the links, with their many vibrating points, are now. The change of direction of movement of the ship will be effected more rapidly and more directly; and as the direction of rotation of nothing—not even that of the screws themselves—is changed, the alteration is made smoothly, and without extra stress on either engines or propellers. The pressure is always in one direction on the guides, the brasses will greatly benefit, and "knocking" be prevented. In all the larger engines the whole of the links, the levers and reversing gear, way-shafts, several eccentrics and rods, and much other gear would be dispensed with, and many complications become unnecessary, and the merely manual labor be thereby much lightened. During the act of changing the position or angle of the blades from full pitch in one direction to full pitch in the other, the torsion strain upon the shaft cannot be increased, the speed of rotation may remain unaltered, and inertia—either of motion or of rest—does not come into play, and cannot affect the magnitude of the stress upon the moving parts. The complete reversal can—without risk of strain of any part—be made in considerably less time than with reversible engines and fixed propellers, and no change in the direction of rotation of any parts is required. The reversal or manipulation of the blades may be effected from the bridge or any other part of the vessel, as well as from the engine room, on emergency or when desired, just as easily as the helm is now operated therefrom. The time occupied and risk in transmission of orders would be saved in the event of imminence of collision, fogs, etc. All sudden stopping and starting is detrimental to the machinery and boilers, and is avoided. Long experience has proved that the modification of the pitch of a screw may be made to effect considerable improvement in the speed of a ship or in the power taken to propel it at a given speed. It is also known that when a ship is lightly loaded, economic advantages attend the power of changing the pitch of the screw as compared with that which is used, and is best when the ship is fully loaded. For manoeuvering purposes, entering and leaving port, navigating crowded rivers or estuaries, etc., this system will relieve the engine room staff of a lot of orders closely following each other, often of vexatious contrarity, and always involving a lot of harmful reversal of stress—sometimes amounting to strains of engines, shafts, propellers and boilers. In all cases the power is regulated to suit the developed propulsive area—in the case of steam by throttling all intermediate passages if necessary, or by varying the expansion—even while the blades are being turned for reversal, and this facility of feathering the screw blades and reducing the power employed while "hovering" will be of very great advantage to war-ships, and on occasion temporarily reduce the H. P. employed from thousands to hundreds. This power regulation is automatically effected while the blades are being turned, and is capable of further manual or motor adjustment when desired. The system will be productive of continuous economy, and will relieve the engineers of much onerous manual labor."

Mr. McGlasson concludes: "I seek safety for those who 'go down to the sea in ships,' and economy for those who do business in 'great waters;' and I respectfully submit to your consideration a system that will ensure the utmost economy in screw propulsion, that will save you much onerous manual labor and mental anxiety, that will give you more satisfaction in your work as marine engineers, and that will, on occasion, save both property and lives—your own, perhaps, included."

The paper has been read in London and Cardiff, and will shortly be read at Bombay, and possibly Calcutta also.

OBITUARY.

The death of Capt. Alex. St. Bernard is announced from St. Clair, Mich. Capt. St. Bernard had attained the age of 85 years. His life was an eventful one. He was a sailor on the brig Marshal Ney, which landed at Chicago in 1830 and is said to have been the first vessel that ever reached that harbor, although the claim is disputed. Subsequently he served in the Black Hawk war. In 1848, when the United States man-of-war Michigan was completed, the difficult task of piloting her out of Erie harbor was assigned to Capt. St. Bernard. The Capt. frequently touched at Beaver Island when the Mormons were there, and was very friendly with President Strang, whose life he tried to save during the uproar. Capt. St. Bernard had lived quietly at St. Clair for many years, drawing a small pension for services in the civil war. He leaves a large family.

* * *

Capt. Andrew Nelson, who died at Pewaukee at the advanced age of 80 years was a Dane by birth and began his experience as a lake sailor about 1850 or earlier. His commands were confined to small vessels altogether, the schooner Souvenir having been one that he sailed, the scow Hunter another and the W. H. Chapman the last. Capt. Nelson retired from the water a number of years ago, and for a long time served as a private night watchman in a Reed street district.

THE INLAND LLOYDS LOCATED IN CLEVELAND.

The annual meeting of the Inland Lloyds was held at Detroit Tuesday, and continued till late at night. Officers were elected as follows: C. W. Elphicke, president; H. S. Sill, vice-president; A. H. McDonell, secretary and treasury; Daniel McLeod, chief inspector of wooden hulls, with office in Cleveland. David Vance, J. J. Rardon and George McLeod constitute the executive board of the Inland Lloyds. The chief topic of discussion was the removal of the office of the Inland Lloyds from Detroit to Cleveland. It was argued that almost any other place would be preferable to this port since so few of the boats stop here. Cleveland was agreed upon as the proper place. It was decided to issue a new register this year, at the expense of the Lloyds. Vessel owners will not be asked this year to contribute the usual 1 cent and 1½ cents per ton inspection fees. A committee of vessel owners, consisting of Parker, of Detroit, Hawgood, Smith and Mack, of Cleveland, appeared before the general agents and asked that general reductions be made in values from last year.

WRECKED.

My ship sailed off one summer day,
Manned by a phantom crew,
Beneath her danced the silvery waves,
Above the sky was blue.
'Twas lightly rigged from stem to stern
And trimmed with streamers gay,
To seek the towers fancy built,
She swiftly sped away.

Free as a bird, her white sails spread,
Bound for a distant shore,
Smoothly she glided o'er the sea,
Light as the freight she bore.
Aladdin's lamp swung on her mast
To light the mariner's way;
Its magic rays shone o'er the waves,
And glistened 'mid the spray.

I watched her as she sailed away
To bring me wealth untold,
To find the castles of my dreams,
More precious far than gold.
And bade the pilot keep his post,
Nor loiter on the way,
But guide her to the promised land
Before the close of day.

But lo! the sun sank; all grew dark,
I strained my eyes in vain,
The fairy bark with all my hopes
I never saw again.
Oh, ship of mine, thy frail white sails
The winds have torn and tossed!
You drifted out amid the rocks,
And all on board were lost.

Alas! bright fancies of my youth,
My castles built in Spain,
Arabian tales in childhood told,
Were not more false or vain.
What matters now the ills of life,
Why burn the beacon fire?
My ship was wrecked and all was lost,
What now do I desire?

MARITIME LAW.

NEW YORK & N. R. CO. v. THE GREENVILLE and THE SCOW NO. 40 and THE DEVOE.

District Court, S. D. New York. October 30, 1893.

COLLISION—VESSELS MEETING IN NARROW STREAM—PROPER CHANNEL. The tug G., with a scow astern on a short hawser, came down the Harlem river and improperly shaped her course so as to pass through the easterly passage of the Third Avenue bridge, which was on her port hand, instead of taking the unobstructed westerly or starboard passage, whereby her scow was brought into collision with a railroad float in tow alongside the tug D., which was coming up through the easterly passage, and which, owing to the bridge, the narrow stream and the absence of lights on the G. indicating a tow, or on the tow to show its position, was unable to do anything to avoid collision. Held, that the G. alone was liable.

In Admiralty. Libel for collision brought by the New York & Northern Railroad Co. against the steam tug Greenville and scow No. 40, the tug Devoe being subsequently brought in on petition of the original defendants. Decree against the Greenville alone.

Brown, District Judge. About 7:30 o'clock in the evening of September 15th, 1892, the libelant's car float No. 2, being in tow on the starboard side of the tug Devoe, while proceeding up the Harlem river, and soon after passing through the easterly passage of the draw of the Third Avenue bridge, came in collision with scow No. 40, which was coming down the river in tow of the steam tug Greenville, upon a hawser 25 or 30 feet in length. The tugs, after the exchange of a signal of two whistles, were passing starboard to starboard, and the float, striking the starboard bow of the scow, which projected probably some ten feet beyond the line of the Greenville, ran up over the starboard bow of the scow upon her starboard bitt, which was thereby forced through the bottom of the float and held her fast.

Upon the merits of the controversy, which have been very strenuously contested as between the Greenville and the Devoe, upon very conflicting testimony, I think that the responsibility for this collision should be placed wholly upon the Greenville, because, without reason or necessity, in approaching the draw of the Third Avenue bridge, she shaped her course for the easterly passage, which was on the port hand, instead of taking the starboard or westerly passage. This was in violation of the ordinary rule of navigation, and it materially and unreasonably obstructed and endangered the passage of the Devoe and her tow through the easterly side of the draw. The E. A. Packer, 58 Fed. 251.

The Greenville and her tow were, as I find, very nearly in the line of the easterly passage, and probably within about 300 feet of it at the time of the collision, whereas she ought to have been shaping her course for the westerly passage, as there was nothing to prevent her doing so, from the time when she passed through the Fourth Avenue draw. The float in tow of the Devoe was large and cumbersome; it was 200 feet long; with the Devoe alongside she took up the entire width of the easterly passageway, save three or four feet. Such tows were in the habit of passing through the draw of the bridge, and the easterly passage was their usual and proper course in going up. The Greenville, on passing through the Fourth Avenue bridge, if she had not already heard the Devoe's signal for the Third Avenue draw to be opened, had, nevertheless, no reason to expect that the easterly passage would be free; nor if she did expect that, had she any right, except at her own risk, within such narrow limits as the Harlem river affods for navigation between the two bridges to shape her course for the easterly passage to her own left, when the westerly passage to her right was unobstructed.

The weight of evidence is that she was not carrying two vertical lights to indicate a tow, while the scow behind her was low, not easily distinguishable in the night, extended considerably beyond the line of the Greenville, and carried no light to indicate this fact. These circumstances are sufficient to explain the collision, and to make the Greenville primarily responsible for it; and the Devoe should not be held chargeable, except upon reasonably satisfactory evidence that notwithstanding the circumstances and the difficulties of the situation, she might, by reasonable diligence and skill, have avoided the collision.

MR. ROCKEFELLER'S RECENT DEALS.

One might imagine, says a recent dispatch from West Superior, from the reports which have been sent broadcast by enterprising correspondents of the press, that John D. Rockefeller, had actually spent sleepless nights and restless days for weary months, planning how he might crush beneath his cruel thumb the hard-working, frugal, and guileless Merritts, of Duluth, and seize their vast estates of rich and productive iron lands.

For a number of years Leonidas Merritt and his brothers conducted a real estate office in Duluth, devoting much of their unemployed time to the exploration of the surrounding country. They knew, as did many others, that Mesaba was one vast range of soft iron hills, but it was not until the fall of 1891, when they had succeeded in securing sufficient options on the State lands and claims on government lands, that they were satisfied to give to the world the benefit of their discoveries. Then a wild mad rush was made for this iron Eldorado, and towns sprang up as if by magic. The flimsy covering of earth that concealed the coveted metal was easily thrown aside and in a jiffy the Mesaba range was equipped with full-fledged mines, having a capacity that was measured only by the size of the mountains themselves. The only thing needed to facilitate development was a railroad. They laid their plans and succeeded in interesting K. D. Chase and Donald Grant, and before the world was aware of it the actual mechanical work of constructing the road was under way. For a while everything was lovely. The mines promised better than the most sanguine had anticipated; the ore stood the severest tests, and created for itself a flourishing market; the settlements grew into embryo cities; the road was pushed; branches to the various mines were thrown out; gigantic ore docks were planned and partially constructed—then there was a crash. The structure was shattered but not demolished, and when the smoke had cleared away the Merritts were on top, and K. D. Chase and Donald Grant had pocketed their gains and repaired to pastures new.

Here is where Mr. Rockefeller stepped in. Capt. McDougall, general manager of the American Steel Barge Works, was one of the Merritts' warmest friends. He was likewise on intimate terms with A. D. Thomson and C. W. Wetmore. The Merritts in their trouble applied to the captain; the captain interested Wetmore and Thomson, and the latter went with the Merritts to New York, and through their combined influence, secured from Mr. Rockefeller the necessary cash to free the Merritts from Chase and Grant and other conflicting interests. The amount required was small, and fortunately for them it was, for no one had confidence in the range, the mines, or the railroad.

The Merritts started with renewed vigor. They brought about the consolidation of the leading mines of the range, induced fresh capital to interest itself in a limited way. Despite the assurance that they had ample capital, they didn't, but they knew where to get it. The men who had come to their rescue once would surely not fail them when they needed more assistance, particularly as he had meantime acquired an interest in western properties, including the West Superior Iron & Steel Co., and a controling interest of the Adams and other mines in the consolidation. These, together with the stocks and bonds of the Aurora mine, the Penokee and Gogebic and the Spanish-American Co., he turned over to the consolidated company, taking therefor bonds to the amount of $4,300,000. Mr. Rockefeller had also advanced large sums of money to the railroad company which were included in this bond issue. When the Penokee and Gogebic companies went into the hands of a receiver, as well as the West Superior Iron & Steel Co., it was necessary that these bonds and stocks which together with the bonds and stock of iron companies before mentioned, have been thus far retained by Mr. Rockefeller as additional collateral for loans made, should be retired and a re-arrangement effected, and this has been done upon the following basis:

Mr. Rockefeller takes back the steel plant bonds, amounting to $640,000, and pays for them and their accrued interest in Consolidated bonds of the value of $652,000, thereby reducing the Consolidated bond issue $3,700,000. He also retains bonds to the amount of $1,500,000, or about the cost to him of the Mesaba holdings, which he turned over to the Consolidated, and the cash advances made, and he sells back the balance of the bonds held by him, about $2,200,000, which are represented by the Aurora, Penokee, and Gogebic and Spanish-American bonds and stocks to the Consolidated, taking therefor Consolidated stock at par. By this latest agreement the bonds and stocks hitherto held by him as additional security are surrendered to the Consolidated company.

Of the recent railway bond issue Mr. Rockefeller receives $1,000,000 of bonds, and this will represent cash advances to the railroad and coupons purchased and protected.

Mr. Rockefeller's last move was practically forced upon him by the necessity that arose requiring him to protect his own interests. That he succeeded is manifest in the recent election of officers of the Mesaba road and the Consolidated mines where his men were seated in the place of the Merritts; and that the end is not yet is plainly evident from the later elevation of his friends to the directorate of the American Steel Barge Co.

NOTES.

ELSEWHERE in this issue will be found the new advertisement of the Lebanon Chain Works. The company rolls its own iron, which it works up into machine chains of all sizes, ships' cables, and steel and iron crane and dredge chains, etc.

CAPT. JOYCE of Boston, is building three fishing boats for outside work. They will all contain Roberts boilers as Capt. Joyce has been able to find nothing superior to same and has used several of them for similar purposes before.

The first sailing vessel lighted by electricity is said to have been the Spanish bark La Vigusea, a bulk oil and general cargo carrier, now at Philadelphia. She is fitted throughout with strong incandescent lights, the power for the dynamos being supplied by a small oil engine, which also furnishes power to pump her oil cargo in or out when she is loading or unloading.

THE March number of *The Century* contains a great variety of points. The opening article is a sketch of the Tuileries under Napoleon III., written by a lady who was a governess in one of the court families. The accompanying portraits are especially interesting. The announcement of the book on Lourdes by Zola gives timeliness to "A Pilgrimage to Lourdes" by Stephen Bonsal, a graphic record of individual experience at this famous shrine. Mrs. Van Rensselaer describes one of New York's most beautiful buildings, the Madison Square Garden; "Josiah Flynt" writes of "The City Tramp," and incidentally shows the crying need of organized charity.

A representative of the Bath Iron Works is expected at New London to consult capitalists there regarding the removal of that establishment to that city. General T. W. Hyde, president of the Bath Iron Co., has written to that effect. General Hyde has publicly stated that the iron works would go away from Bath if sufficient inducements were offered. It is understood that one of the things the iron works will insist upon is the establishment of a dry dock at New London which will accommodate the largest vessels afloat—craft 600 or 700 feet long—the dry dock to be maintained by a company formed for that purpose and composed chiefly of New London capitalists. There is a disposition among New London people to secure the iron works if possible.

PROPOSALS.

U S. ENGINEER OFFICE, 34 West Congress Street, Detroit, Mich., Feb. 9, 1894. Sealed proposals for (A) Excavation within Coffer Dam; (B) Building Cribs within Coffer Dam; and (C) Mitersill Valves; for the 800-foot Lock, St. Mary's Falls Canal, wi l be received at this office until 2 p. m., March 12, 1894, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application. O. M. POE, Col., Corps of Engineers. 7-9

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WALTER F. COBB, Vice President and Treasurer.

W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

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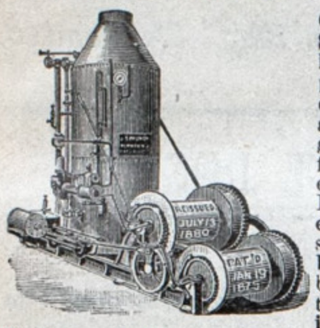

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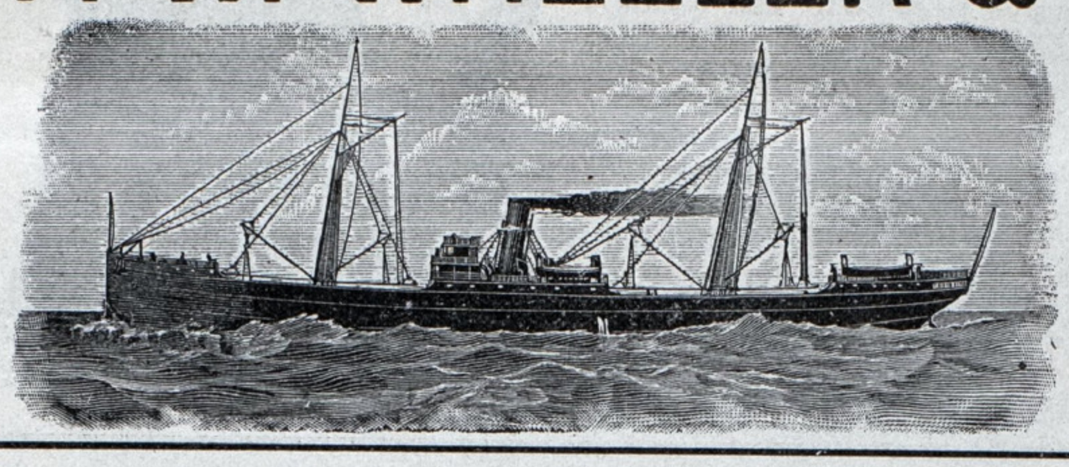

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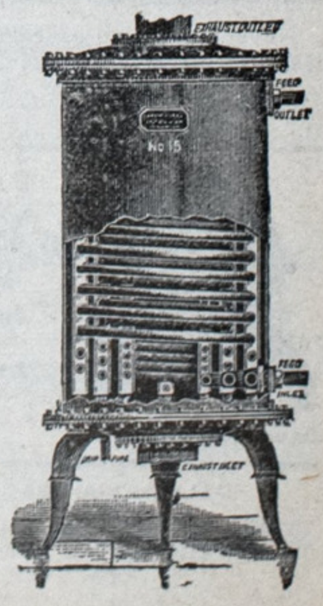

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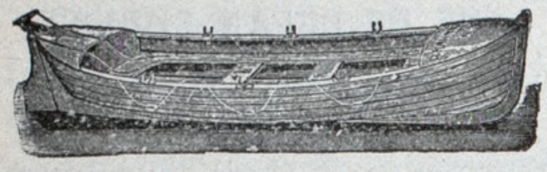

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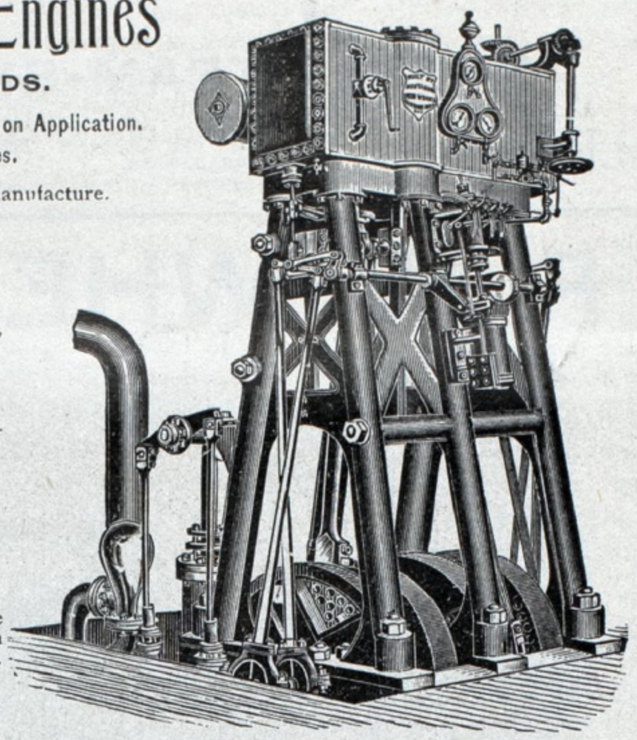

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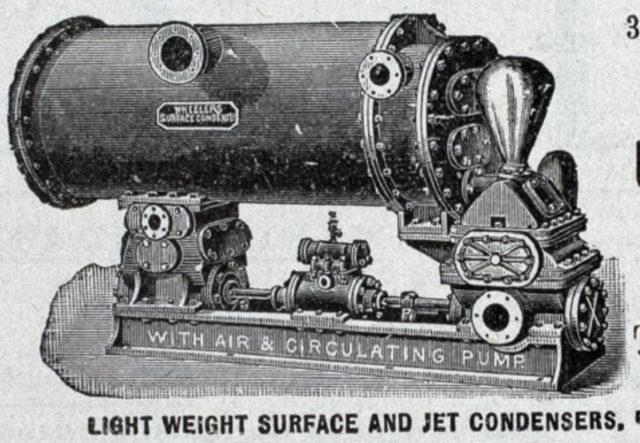

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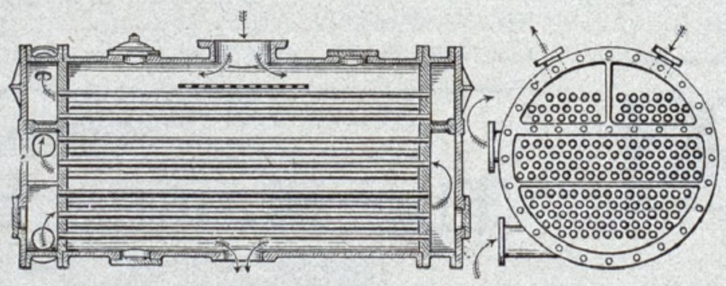

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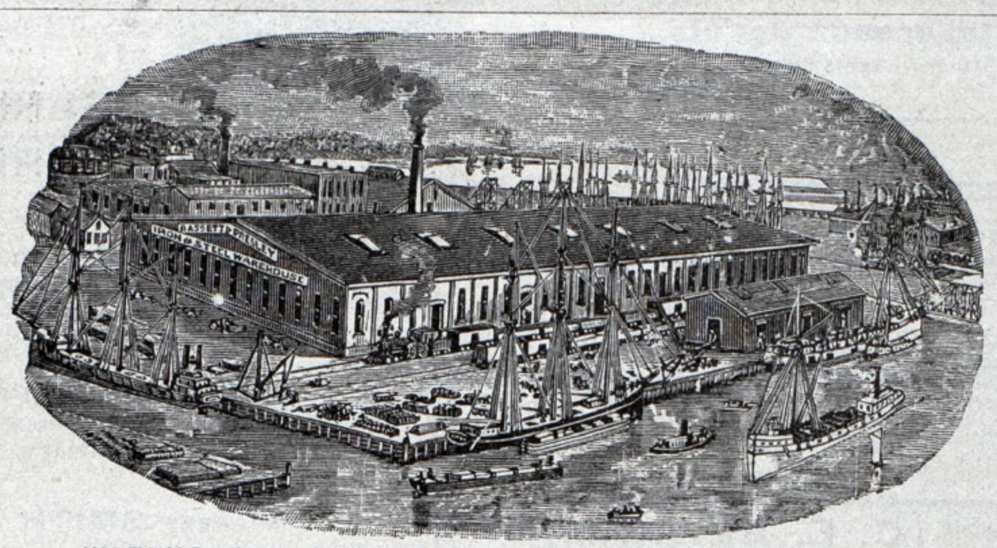

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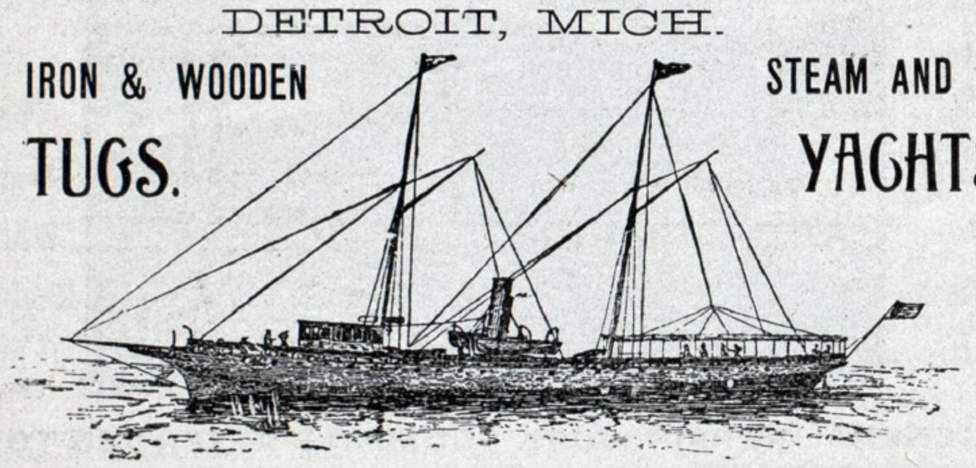

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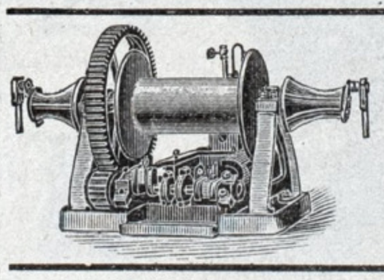

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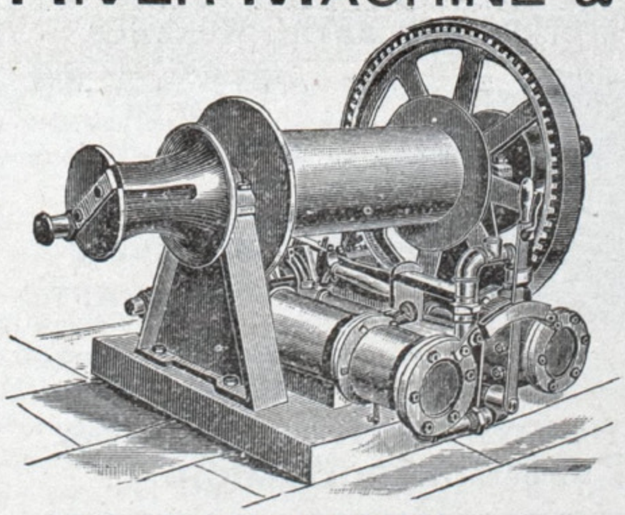

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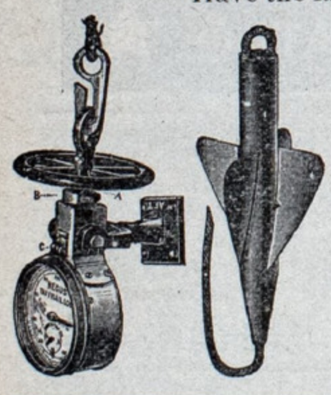

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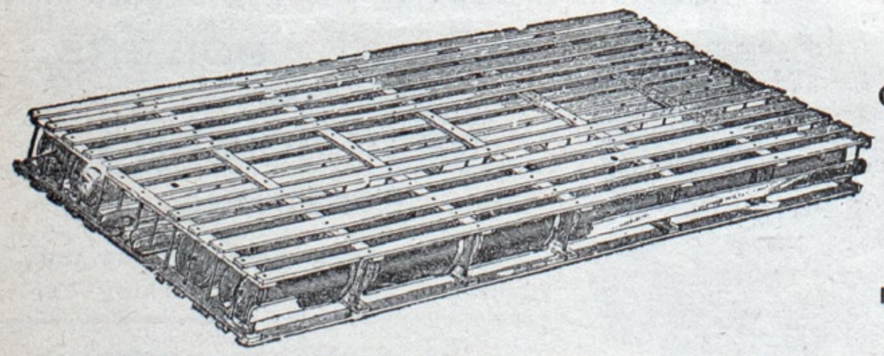

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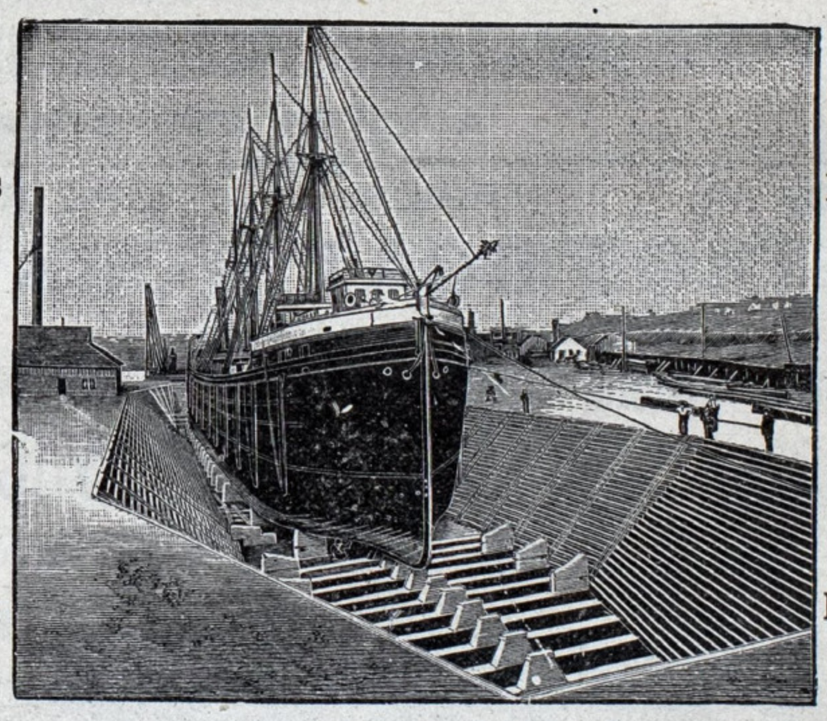

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